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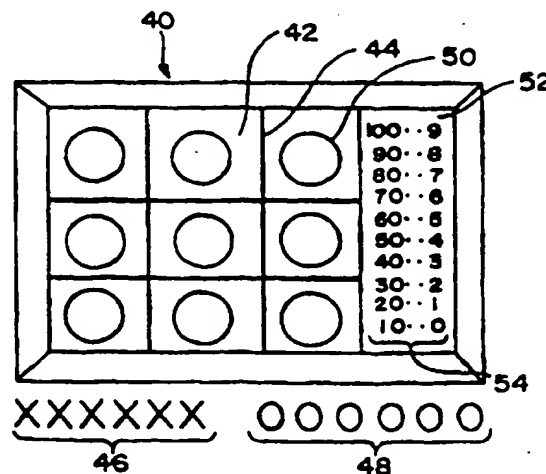
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: **SLOT-TAC-TOE/SPIN-AND-WIN GAMES AND INTERACTIVE NETWORK GAMBLING TOURNAMENT COMPUTER SYSTEM FOR IMPLEMENTING SAME**

## (57) Abstract

A game device includes a game board (40) divided into a plurality of zones (50) arranged in a plurality of columns and a plurality of rows and forming a plurality of diagonals. The game device includes a first set (46) and a second set (48) of playing pieces (66) respectively used by first and second players. At least three of the first (46) and second (48) sets of playing pieces (66) are placed into at least three of the plurality of zones (50) of the game board (40) until at least three of the first playing pieces (46) or at least three of the second playing pieces (48) have been placed in one of the plurality of rows, one of the plurality of columns or one of the plurality of diagonals. The game device also includes first and second sets of cards (66), respectively distributed to first and second players. Each of the first and second cards having respective first and second rankings associated therewith. To determine which playing piece is to be placed in one of the zones of the game board (40), the rankings of the first and second cards are compared to each other. The game device can be used in ordinary, tournament or roulette play. In addition, the game device includes the features of doubling, bluffing and variations.



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SLOT-TAC-TOE/SPIN-AND-WIN GAMES AND INTERACTIVE NETWORK GAMBLING  
TOURNAMENT COMPUTER SYSTEM FOR IMPLEMENTING SAME

Related Applications

This application is a continuation-in-part application from U.S. patent application serial number 08/595,133 filed February 1, 1996 entitled "COMBINATION  
5 TIC-TAC-TOE GAME AND NUMBERED CARD COMPETITION," now U.S. Patent Number 5,580,059; U.S. patent application serial number 08/706,388 filed August 30, 1996 entitled "COMBINATION TIC-TAC-TOE GAME AND NUMBERED CARD  
10 COMPETITION," and U.S. patent application Serial No. 08/716,114, filed September 19, 1996 entitled "PICK 'EM POKER CARD/TOURNAMENT GAME AND INTERACTIVE NETWORK COMPUTER SYSTEM FOR IMPLEMENTING SAME," all of which are hereby incorporated by reference.

This application claims priority from, and  
15 incorporates by reference, the following additional applications: U.S. provisional patent application Serial No. 60/019,747, filed June 14, 1996 entitled "PICK 'EM POKER TOURNAMENT GAME AND INTERACTIVE NETWORK COMPUTER SYSTEM FOR IMPLEMENTING SAME," U.S.  
20 provisional patent application Serial No. 60/011,574, filed February 13, 1996 entitled "INTERACTIVE NETWORK GAMBLING CASINO SYSTEM," U.S. provisional patent application Serial No. 60/011,573, filed February 13, 1996 entitled "SLOT-TAC-TOE GAME AND SPIN-AND-WIN  
25 COMPUTER SYSTEM," U.S. provisional patent application Serial No. 60/013,798, filed March 21, 1996 entitled "SLOT-TAC-TOE GAME COMPUTER SYSTEM WITH BIG WIN-AND

SPIN, LITTLE WIN-AND-SPIN COMPUTER IMPLEMENTED FEATURES, and U.S. provisional patent application Serial No. 60/023,481, filed August 8, 1996 entitled "COMPUTER IMPLEMENTED GAMES AND CARD GAMES."

#### Technical Field

The present invention relates generally to games, and more particularly, an interactive network gaming system for playing tic-tac-toe type games in a slot machine like environment or system, including tournament competition with concurrent re-entry feature.

#### Background Art

The growth of the gaming industry, in particular, gambling casinos has been very significant over the last decade. The industry has come to recognize the need for new games and new gambling concepts. It also recognizes that the new technologies available need to be integrated in order to improve their gaming environment. It also recognizes the need to become a more efficient gaming provider.

The state gaming control boards of Nevada and New Jersey (which have traditionally been slow to approve any new games or gambling concepts) have changed their philosophy so dramatically that today they actively encourage the trial and acceptance of new games and gambling concepts.

Over the years, there have been many different types of games. These have ranged the gamut from those involving great mental prowess to games involving

merely chance. Nevertheless, there is still a strong interest in game concepts that create real excitement.

More specifically, with many games the players are placed in the position of passive observers. This is actually most true of the most expensive games that employ electronic components and the like which may or may not involve any skill on the part of the player. Still further, the game development is almost always viewed as unrealistic at best.

Because of this fact, such expensive games are often difficult to market and discarded after minimal play even when purchased by the consumer. Moreover, even when use continues, such games have consistently lacked any relationship to the excitement as well as the strategy and planning that should be the characteristic of any game. While it is generally recognized that decision making in game play is of paramount importance, there has yet to be a game that places players in a realistic decision making capacity.

One game of continued interest over the years is tic-tac-toe. As a result, while the game of tic-tac-toe is interesting, players oftentimes have become bored with continued play thereof.

There have been a number of electrical and mechanical versions of the game of tic-tac-toe designed for either solitary play or play between two players. In addition, electronic tic-tac-toe games are also

known which allow a player to compete against a computer programmed to play tic-tac-toe. Such electronic tic-tac-toe games are also available in hand held units utilizing an integrated circuit device known as a microprocessor as the computer.

Everyone is familiar with tic-tac-toe. The game is played between two players who alternately select "X's" or "O's" to be placed in one of the nine boxes formed by two parallel lines intersecting at right angles with two other parallel lines intersecting at right angles with two other parallel lines. The first player begins play by placing an "X" in one of the nine boxes, and the second player places an "O" in another one of the nine boxes. The players continue to alternately place "X's" or "O's" in the array of nine boxes and one of the players may win by placing three of his symbols in one of the three vertical columns, one of the three horizontal rows, or along one of the two diagonals. The game may also end in a draw if neither one of the two players is able to win in the manner described above.

The main advantages of tic-tac-toe are that it is easy to learn, fun, and can be played virtually anywhere. However, it also has a disadvantage that it has limited variations. In fact, if both players are familiar with the game, it is common to continually reach a draw. Because of this interest in tic-tac-toe,

there have been many attempts to make the game more interesting and exciting, thereby reducing the inherent disadvantages of the game.

For example, U.S. Patent 4,813,681 illustrates a game 10 including a plurality of playing markers 12 adapted to be arranged in rows 14 and columns 16 (FIG. 1). The playing markers include four playing markers having a first indicia thereon, four playing markers having a second indicia thereon, and a single playing marker having both a first and a second indicia thereon. The playing markers are adapted for random distribution in equal numbers to a pair of players with the remaining playing markers defining a starting point on space 24 in placement area 22. A player places a playing marker in non-diagonal adjacent relation to a previously placed playing marker with the playing markers being placed in turn by the players in like fashion to form the rows and columns. With this arrangement, the rows and columns are each limited to a total of three playing markers arranged in a generally rectangular array. The game winner is the player to be the first with a corresponding first or second indicia on the playing markers disposed in a row, a column or diagonally.

U.S. Patent 4,684,136 describes a game apparatus 10a consisting of nine tic-tac-toe arrangements 12a (FIG. 2). Two teams answer questions 32a until three

tic-tac-toe arrangements are won in a vertical, horizontal or diagonal row to completely win the game. Each playing piece 16a is placed into aperture 18a on playing board 12a when question 32a is answered correctly.

U.S. Patent 4,275,442 describes an electronic tic-tac-toe game 10b that includes a display board 12b having a tic-tac-toe array 14b printed on the display (FIG. 3). The tic-tac-toe game 10b controls the electronic display of the selected "X's" 16b and "O's" 18b on display board 12b. A game mode select switch 30b enables the game 10b to be played in the solitary mode of operation against a microprocessor programmed to play tic-tac-toe, or in a dual mode of operation between two players. In the dual mode of operation, players may electronically select their game symbols which then appear in player displays 20b and 22b. A switch 28b enables the microprocessor to control the time allotted for the microprocessor to select a move in the solitary mode of operation or to limit the time the opposing player has to move in the dual mode of operation. Microprocessor accumulates the wins for each player and displays these wins in total wins displays 24b and 26b.

U.S. Patent 5,248,149 relates to a method of playing tic-tac-toe using cards 1 and a playing grid 3 of at least three by three with spaces 3a to

accommodate a card (FIG. 4). The cards have at least two different types of indicia, for example, X's 5 and O's 7. A first player draws a card from a deck of such cards and designates the type of card drawn as his type of card. The first player then places this card in an unused space in the grid. The second player then draws a card from the deck. If it is the same type as that designated for the first player, the second player discards it such as by placing it on top of the card which has-already been played. If the card-selected by the second player is of a different type from that designated for the first player, the second player places it in any unused space in the grid. In a preferred embodiment, the deck also includes cards which when played on top of any other card renders the space unused. According to this game, players are permitted to place a card on the tic-tac-toe board when the indicia on the card matches each players designated indicia. Thus, there is no significant strategy added to the standard tic-tac-toe, and this game merely introduces an additional element of luck.

U.S. Patent 3,770,273 describes a game of skill which in one form simulates tic-tac-toe (FIG. 5). The game includes a self-supporting frame 16c for removably lodging a plurality of indicia-bearing playing cubes 12c above a playing surface 14c. A tethered striker ball 18c is mounted above the playing surface and is

adjustable in height with respect thereto for  
dislodging the playing cubes 12c from the frame 16c by  
impact-transfer between the striker ball 18c and the  
playing cubes 12c. Players, in turn, use the tethered  
5 ball to dislodge the playing cubes which are then  
reinserted into the frame, the object being the  
formation of a row or pattern of player-chosen indicia.

U.S. Patent 5,318,307 relates to a game of skill  
and strategy that can be played on almost any surfaces  
10 (grass, sand, water, cement, etc.), indoors as well as  
outdoors (FIG. 6). This game shows some resemblance  
with "tic-tac-toe". The game comprises a reception  
frame 10d divided into nine squares 14d and four groups  
of disks, e.g., 22d, 24d and 26d, two for each player.  
15 The squares form targets to be hit with the disks. The  
first set of disks is made up of at least nine disks of  
the same diameter, density and thickness. The second  
set has only three disks of a larger diameter than  
those of the first group. The larger size of the disks  
20 of the second set makes them harder to lodge in the  
target squares. This is compensated by the fact that a  
larger disk can remove one of the opponent's disks and  
take possession of the square. First, the players take  
turns trying to toss the small disk into the squares.  
25 After this phase, they use the larger disks to try to  
dislodge the opposing player's disks and gain an  
advantage on him/her.



Unfortunately, all these prior art attempts at making tic-tac-toe interesting and challenging have not been successful. That is, the prior art has been unable to successfully provide a tic-tac-toe game that combines the attributes of skill, luck, and simplicity with rapid play.

In addition to the above problems relating to development of an exciting tic-tac-toe game, the general problems associated with introducing new games has always been the basic criteria for mass-market gambling:

- \* Easy-to-learn game rules.
- \* Strategies must be easy to master and not favor "the expert" disproportionately.
- \* Games must have a short duration between the start (the bet) and the finish (the payoff).
- \* The payoff structure, that is, what can be won by a lucky player must be enticing.
- \* The game must be fair, that is, the casino should not have an unreasonable advantage.
- \* The game must be "secure", that is, protected from cheating and tampering.
- \* The casino's "win" must be demonstrated to be worthwhile., that is, the "win per machine per month" must at least compare favorably to that of the "slots".

What has not been seen is that a new platform is needed to stimulate the development of new games and gambling concepts. That platform, the interactive network is the fertile ground for new games, such as:

5       \*     PIC-TAC-TOE : a player against player game, which on the interactive network can be played in large knockout tournaments - where the jackpot is potentially large and is always won.

10       \*     Which-Way-To-Go : a poker-like game for an unlimited number of players with two hands;

(1)

a jackpot hand, where luck brings large rewards.

(2)

15       a side-game hand, where sub-groups of the total player pool play the skilled game of Hold-Em.

\*     Virtual Poker : where the interactive network "brings" players to the poker table. No collusion, no intimidation, no cigar smoke.

20       \*     Deal Your Own Blackjack : the house advantage is gone.

25       In addition, the interactive network is an open platform for any game developer to create new games and gaming concepts. The casino can offer these new games without installing additional hardware, since they will be playable from any touch screen on the interactive network.

Casinos provide other services to the player beyond gaming, examples:

\*

Nightclub Entertainment

\*

Restaurants

\*

Transportation

\*

Refreshments

\*

Credit Card Verification

The interactive network allows for direct interfacing from the players touch screen to any of these services.

In addition, it is an open platform to any new electronic services that may become available.

The concept of casino "downtime" is a major management efficiency problem. Whenever players are not gambling they are "down", examples:

\*

When a blackjack dealer shuffles the decks of cards - the players at his table are "down"

\*

When a player looks for a table to play, in the game and for the stakes he wants, he is "down."

\*

When a player changes the game he his playing and has to walk to another location.

\*

5

When a player wishes to bet on a sports event or see the results of a sports bet wager, he is "down" until he returns.

\*

10

When a player is intimidated from playing because of smoking or card professionals.

15

The interactive network can shuffle and deal in fractions of a second. A player can find his game, at his stakes, by calling up (by touch) a menu of games available. A player can "window" to sports betting while still participating in another wagering event.

20

The interactive network makes the player anonymous and safe from smoke and card sharks. No known devices have the means to create a "dynamic" interactive network of knockout tournaments where participants compete electronically "head-to-head" and where there is no limit to an individual tournament size and therefore no limit to the size of the jackpot. In addition, no known electronic gaming devices have been programmed to play a game which meets all the gaming criteria listed above and allows for any sort of interactive network.

25

Accordingly, it is desirable to provide a game that provides a player the opportunity to exercise

their skill. It is also desirable to provide a game that includes luck to make the game exciting, unpredictable and enjoyable for people of all levels of intelligence.

5           It is further desirable to provide a game that has simple rules so that new players may learn the game easily, including learning the appropriate strategy for the game.

10           It is also desirable to provide a game that can be played rapidly so that multiple games can be played between two or more players in a short period of time.

          It is also desirable to provide a game that can be played between two players, or multiple players in a tournament manner.

15           It is further desirable to provide a game that incorporates the feature of multiplying the game value to further enhances the excitement of the game.

20           It is further desirable to provide an interactive network architecture to provide a tournament competition for games.

          It is further desirable to provide an interactive network architecture to provide a tournament competition, as well as providing simultaneously a local or individual game that is played by the player.

25           It is further desirable to provide an interactive network architecture to provide a tournament competition, as well as providing simultaneously the

ability for concurrent re-entry into the tournament to maximize tournament participation.

Summary of the Invention

5           It is a feature and advantage of the present invention to provide a game that permits a player the opportunity to exercise their skill.

10           It is another feature and advantage of the present invention to provide a game that includes luck to make the game exciting, unpredictable and enjoyable for people of all levels of intelligence.

15           It is another feature and advantage of the present invention to provide a game that has simple rules so that new players may learn the game easily, including learning the appropriate strategy for the game.

20           It is a further feature and advantage of the present invention to provide a game that can be played rapidly so that multiple games can be played between two or more players in a short period of time.

25           It is another feature and advantage of the present invention to provide a game that can be played between two players, or multiple players in a tournament or round-robin manner.

          It is another feature and advantage of the present invention to provide a game that incorporates the feature of multiplying the game value to further enhances the excitement of the game.

It is another feature and advantage of the present invention to provide the player the option of playing the tic-tac-toe game against a computer in a slot machine fashion, and at the completion of the tic-tac-toe game, have the computer rotate the columns of the tic-tac-toe board in a slot machine like fashion for further chances to win a game with higher stakes.

It is another feature and advantage to provide an interactive network architecture for individual and tournament competition.

It is another feature and advantage to provide an interactive network architecture for tournament competition of the modified tic-tac-toe game.

It is another feature and advantage to generally provide a tournament structure/framework for tournament competition of games in a network environment.

It is another feature and advantage to provide an interactive network architecture to provide a tournament competition for the modified tic-tac-toe game, as well as to provide simultaneously a local or individual game that is played by the player.

The present invention is based, in part, on the discovery or realization that previous attempts at improving the tic-tac-toe game have been unsuccessful due to the inability to combine the attributes of skill, luck, and simplicity with rapid play. The present invention is further based on the realization

that combining the tic-tac-toe game with a numbered card competition provides these above desired attributes.

5 It is another feature and advantage of the present invention to provide a combination tic-tac-toe game and numbered card competition. In addition, it is also a feature and advantage of the present invention to provide numbered cards having a special or unique orientation to facilitate their use in the present  
10 invention.

It is another feature and advantage of the present invention to provide a tournament competition with the ability for concurrent re-entry into the tournament to maximize tournament participation.

15 To achieve the features and advantages of the present invention, a game device providing a combination tic-tac-toe game and numbered card competition is provided. The game device includes a game board divided into a plurality of zones arranged  
20 in a plurality of columns and a plurality of rows and forming a plurality of diagonals. The game device also includes first and second sets of playing pieces respectively used by first and second players. At least three of the first and second sets of the playing  
25 pieces are placed into at least three of the plurality of zones of the game board until at least three of the first playing pieces or at least three of the second



playing pieces have been placed in one of the plurality of rows, one of the plurality of columns or one of the plurality of diagonals. The game device also includes first and second sets of cards, respectively

5 distributed to the first and second players. Each of the first and second cards having respective first and second rankings associated therewith.

10 To determine which playing piece is to be placed in one of the zones of the game board, the rankings of the first and second cards are compared to each other. The game device can be used in ordinary play, tournament play or chouette play. In addition, the game device includes the features of doubling, bluffing and variations.

15 In another embodiment of the invention, a method of playing a game includes the steps of uncovering, by each of the first and second players, respective first and second cards from the first and second sets of cards respectively, and comparing the first and second rankings of the first and second cards and determining  
20 whether the first or second playing piece is to be placed in one of the plurality of zones of the game board responsive thereto. The method also includes the steps of placing one of the first and second playing  
25 pieces in any of the plurality of the zones of the game board that do not already include one of the game pieces responsive to the comparing step and game

strategy, and repeating the uncovering step, the  
comparing step, and the placing step until at least  
three of the first playing pieces or at least three of  
the second playing pieces have been placed in one of  
5 the plurality of rows, one of the plurality of columns  
or one of the plurality of diagonals.

In another embodiment of the invention, an  
electronic system simultaneously plays a tournament  
game among a plurality of players playing against each  
10 other, and an individual game where the player plays  
against the house. The electronic system includes a  
central computer that performs the functions of  
enabling all players to select a monetary level of  
wagering, assigning players to the tournament game, and  
15 initiating and transmitting all events relating to the  
playing of the tournament to the player. The central  
computer also performs the functions of tabulating,  
storing and transmitting data received from the  
plurality of players in response to the tournament  
20 game, evaluating each individual game within the  
tournament game to determine a winner for the  
tournament game, and distributing a tournament award.  
The electronic system also includes a plurality of  
player workstations, one player workstation for each  
25 player. Each player workstation is electronically  
connected to the central computer. Each player  
workstation performs the functions of electronically

receiving and displaying tournament data from the central computer and from each player, and transmitting player inputs for the tournament to the central computer. Each player workstation also performs the functions of transmitting wagering data from the player to the central computer, and processing the player inputs for the individual game and distributing an individual award responsive thereto.

These together with other objects and advantages which will be subsequently apparent, reside in the details of construction and operation as more fully herein described and claimed, with reference being had to the accompanying drawings forming a part hereof wherein like numerals refer to like elements throughout.

#### Brief Description of the Drawings

FIG. 1 is an illustration of a first prior art tic-tac-toe game;

FIG. 2 is an illustration of a second prior art tic-tac-toe game;

FIG. 3 is an illustration of a third prior art tic-tac-toe game;

FIG. 4 is an illustration of a fourth prior art tic-tac-toe game;

FIG. 5 is an illustration of a fifth prior art tic-tac-toe game;

FIG. 6 is an illustration of a sixth prior art tic-tac-toe game;

FIG. 7 is an illustration of the game board in the tic-tac-toe and numbered card combination game;

5        FIG. 8 is an illustration of the numbered card holder in the tic-tac-toe and numbered card combination game;

10       FIG. 9 is an illustration of the numbered cards used in the tic-tac-toe and numbered card combination game; and

FIGS. 10 and 11 are illustrations of the game value multiply device in the tic-tac-toe and numbered card combination game;

15       FIG. 12 is a block diagram of the computer architecture in accordance with the network casino embodiment;

20       FIGS. 13-17 and 18-20 are flowcharts of the computer implemented process for PIC-TAC-TOE™ (hereinafter PIC-TAC-TOE) and the network casino processes;

FIG. 17A is a conceptual diagram of the concurrent re-entry feature for the tournament competition;

FIGS. 21-30 illustrate various interface screens utilized by the network casino system;

25       FIG. 31 shows the selection of the starting 3 digits in the SLOT-TAC-TOE™ (hereinafter SLOT-TAC-TOE) game;

FIG. 32 illustrates the display screen after selecting the starting 3 digits: 9 8 7 for the SLOT-TAC-TOE game;

FIG. 33 illustrates the SLOT-TAC-TOE game in progress, and after four moves of play;

FIG. 34 illustrates the move strategy for SLOT-TAC-TOE;

FIGs. 35 and 36 illustrate all possible positions and their corresponding choice of moves to be made for the SLOT-TAC-TOE game; and

FIGs. 37-39 are flow charts of the computer implemented process for SLOT-TAC-TOE with Big Win N' Spin and Little Win N' Spin features.

#### Best Mode for Carrying Out the Invention

The following describes the basic components and rules for playing the combination tic-tac-toe and numbered card game or PIC-TAC-TOE.

#### GENERAL SCORING RULES FOR PIC-TAC-TOE

There are three methods of scoring used in the combination tic-tac-toe game and numbered card combination:

(1) Each game is worth 1 point (Simplest)

In this method, the first player to reach an agreed upon point total wins. Ties and doubles are not used.

(2) Game value is one plus the number of ties

(Harder)

In this method, the first player to reach an agreed upon point total wins. Ties effect the Game Value (add 1 for each tie). Doubles are not used.

(3) Game Value calculated from ties and doubles

(Hardest)

In this method, the first player to reach an agreed upon point total wins. Ties effect the Game Value (multiply current Game Value by two each time the game is doubled).

Number of Players:

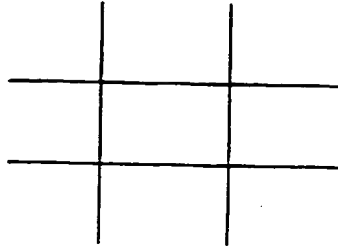
The combination tic-tac-toe game is commonly played with 2 players, but can also be played with 3 or more players (see Chouette Rules below). One player uses the "X"s, and the other uses the "O"s.

Equipment:

The game equipment consists of the following items illustrated in FIGs. 7-11:

(1)

A game board 40 with a flat surface 42 and a grid 44 superimposed on it (FIG. 7).



The game board 40 preferably includes nine holes or depressions 50 filled with green felt (FIG. 7).

(2)

Two sets of "X"s 46 and "O"s 48, six of each (FIG. 7).

(3)

A counter 52 capable of displaying any number from 1 to 99. Counter 52 preferably includes two vertical columns 54 of holes for insertion with pegs (FIG. 7).

(4)

Two card racks 56, each capable of holding all nine cards of a set (FIG. 8). Card rack 56 includes ten slits 58, each wide enough for a playing card to be easily inserted therein. The length of each slit is preferably the same, and sufficiently shallow to permit the playing card to be exposed outside the slit 58 approximately 3/4".

Therefore, for a 3" card, each of the slits 58 are approximately 2 1/4" deep. Card holder 56 is designed so that the front end portion 60 is preferably narrower than the rear portion 62, thereby further enhancing the readability of the playing cards inserted therein, particularly in view of the fact that slits 58 are of substantially the same length. In other words, angle 64 is formed which indicates the relative difference in widths between the front portion 60 and rear portion 62 of card holder 56.

(5)

Two sets of numbered cards 66 (See FIG. 9 illustrating one set of cards).

(6)

Each set 66 contains cards with the numbers 1 through 9. Each set is also identified by either having an X or an O printed thereon 72, corresponding to the number 74 printed on each card. Advantageously, the card is oriented and configured in a manner to facilitate play of the tic-tac-toe and numbered card competition. As illustrated in FIG. 9, the horizontal orientation 68 is the longer side than vertical orientation 70. This configuration greatly facilitates play of the tic-tac-toe numbered card competition since the cards 66 are placed in card holder 56 in the



horizontal direction to permit the player to easily view all cards 66 that are placed in card holder 56.

(7)

5 A variant die 76 with its sides 78 numbered: 1, 1, 3, 3, 9, 9 (FIG. 10). Variant die 76 is illustrated with six sides, however, other types of dies may also be used. Alternatively, the variant dies includes its sides numbered 1, 1+, 3, 10 3, 9, 9 or even 1+, 1+, 3, 3, 9, 9, and the like. Thus, there are several combinations of indicia that may be printed on variant die 76 to enhance the combination tic-tac-toe and numbered card (8).

15 A card 80 with the word DOUBLE on it (FIG. 11).

Object of the Game:

The object of combination tic-tac-toe and numbered card game is to place 3 tokens 46, 48 on the tic-tac-toe board.

\*

In a row,

\*

In a column, or

\*

On a diagonal.

Game Variations:

There are 4 common tic-tac-toe variations in accordance with the present invention:

Variant 9,

5 Variant 3,

Variant 1, and

Variant 1 + 1.

10 The Variant Die 76 is used to randomly select your game variations. These different variations are \_\_\_\_\_ described in detail below.

How to Play - General Rules For All Game Variations:

The game starts with the tic-tac-toe board 40 cleared of all tokens ("X"s 46 and "O"s 48) and the Game Value 54 set at 1. Each player starts with 9 cards 66 numbered 1 through 9. According to the variation you are playing (described below), arrange your cards in the order you wish to play them. The double card 80 starts in the middle, near the game board 40. No modifications to the playing order may be made after the first card is compared.

Starting from the front of the rack 56, players expose and compare one card at a time. The player who has the higher numbered card, places a token (i.e., an X or O) on any unoccupied space 50 on the tic-tac-toe board 40. The game continues in this fashion until one player gets three tokens in a row, column or diagonal.

The play begins with a move. Each player plays the front most card in the rack 56 by placing it face up for viewing by other players. Whichever player reveals the higher numbered card gets to place their X or O on the playing surface, in any of the nine grid positions 50. The moves continue, in the same fashion, revealing the next card, and whichever player reveals the higher numbered card for each round gets to place his X or O on the playing surface. The game ends when one player (the winner) has placed three of his "X"s or "O"s in a row or column or diagonal - or - if it is not

possible for either player to create a row or column or diagonal of just "X"s or "O"s (a draw).

5 If all nine cards 66 have been revealed and because of ties there are still open grid locations to place "X"s and "O"s, then the players will alternate placing their "X"s or "O"s without the use of cards resulting in a winner or a draw. The player who did not move last will place his X or O first. The winner gets the points shown by the counter 54 and the counter 10 54 is reset to one for the next game. After a draw, the counter 54 is not reset, and the next game is played for a higher value.

If the Cards are Equal (A Tie):

15 There are various options available when the numbered cards are equal resulting in a tie:

(1)

Neither player places a token X or O 46, 48 on the board 40, or

20 (2)

Alternate between players to place a token 46, 48 on the board 40 as each tie occurs.

Additionally, the game value may also optionally be increased one or more points. When a tie occurs, the game value can be incremented using the game value pegs 25 used by counter 54. For ties relating to when all nine

cards have been played and neither player has won, see below discussion relating to winning the game.

Strategy:

5           There are various levels of strategy for this game. Some of the more important strategies are described below:

(1) Arranging the numbered cards

10           Generally, any card arrangement can be countered or beaten by another card strategy. For example,

9 8 7 6 5 4 3 2 1 -

The "SLIDE" is beaten by . . .

1 2 9 8 7 6 5 4 3 -

15           The "BUNGEE PLUNGE" which loses to . . .

6 5 4 9 8 7 3 2 1 -

The "TRIPLE DIP" which loses to "SLIDE."

20           Thus, there are various combinations of cards that can be played, depending on the personality, aggressiveness and strategy of each player.

(2) The placing of "X"s and "O"s

25           Here the strategies of tic-tac-toe are generally applicable, but not completely, as will be discussed below.

## (3) Going for the Win.

Knowledge of numbered cards played can sway the normal strategies of tic-tac-toe. For example,

X	O	
X		

If player O wins the next move he would normally block Player X. However, with the knowledge of which numbered cards have been used, he may elect to play for the WIN! By not blocking Player X, Player O hopes or bets that she will also win the next move to create the winning position:

X	O	
X	O	
	O	

## (4) Doubling

Doubling can be used to assure victory or to bluff and create a victory from a potential loss.

For example, if after two moves, Player X has revealed 9 8, while Player O has revealed 1 2, the game board looks like this:

X		
	X	

5 It appears that Player X is headed to an easy victory but, lo and behold, Player O reaches for the double card. Player X must now guess whether his card combination, for example, of the "SLIDE" - 9 8 7 6 5 4 3 2 1 has met Player O's card combination of the deadly  
 10 BUNGEE PLUNGE 1 2 9 8 7 6 5 4 3 or is Player O's doubling just a BLUFF? Perhaps Player O really has a losing order 1 2 6 7 8 9 5 4 3! Can Player X "take the double"? He very well might, if Player X has the combination 9 8 1 2 7 6 5 4 3. If Player X has the  
 15 favorable hand of 1 2 9 8 7 6 5 4 3, he will probably accept the double.

#### Playing With More than 2 Players (Chouette):

20 Whoever cuts the high card or rolls the high dice is placed in the "box" and plays alone against a team composed of everyone else. Second-high cut or roll is captain of the team and makes all the plays in consultation with his/her teammates. Order of succession to the captaincy in succeeding games is  
 25 determined by the initial cut or roll, with the lowest becoming the foot, and last to run the team.

The Captain has final say on all plays except responses to doubling. When a double is offered by either side, any member of the team may choose to resign, "paying" the game value to the man in the box. When the person in the box refuses a double or is beaten, he/she "pays" the full game value to each member of the opposing team and then becomes the foot. The captain is now in the box and the second ranking member of the team becomes the captain.

#### The Variant Die:

Players will find the game variants require different strategies and each holds its own fascination. The variant die is cast before each game to determine which variant will be played.

#### Variant 9

Each player places all 9 cards in a rack, in the order they wish to play them. This is the standard way of playing the tic-tac-toe game of the present invention. Follow the instructions for play outlined above.

#### Variant 3

Each player places 3 of their nine cards in a rack, in the order they wish to play them (leaving the remaining 6 cards face down).



After all 3 cards have been compared, each player chooses 3 more cards from the 6 remaining cards and places them in the rack in the order they wish to play them.

- 5        After these cards have been compared, each player places the final 3 cards in the rack, in the order they wish to play them.

Variant 1

- 10       No cards are placed in the rack, instead they are all held in the player's hand and played one at a time. That is, the player has the chance to change his strategy before every card that he plays.

15       Variant 1+1

- Each player places 2 of their 9 cards in a rack, in the order they wish to play them. Leaving the remaining 7 cards face down. Starting from the front of the rack, players expose and compare the front card only. Do not expose the second card. The player who has played the higher numbered card, places a token on any unoccupied space on the board.
- 20

- Each player then chooses 1 card from the remaining cards and places it in the rack behind the card that is already there. Again, players expose and compare the front card only. Again, the player who has played the higher numbered card, places a token on any unoccupied
- 25

space on the board. Again, each player chooses 1 card from the remaining cards and places it in the rack behind the card that is already there.

5 Repeat the last three steps until one player gets three tokens in a row, column or diagonal.

During the First 9 Cards:

A player wins during the first 9 cards if:

10 He places 3 tokens in a row, column or diagonal,  
or

He doubles, and his opponent rejects the double.

After 9 Cards Have Been Played:

15 If all 9 cards have been played and no one has won the game play continues as follows: The player who lost the last play, places a token on the board. Players then alternate placing a token until one player wins, or, 9 tokens have been played and there is still no winner.

20

After Nine Moves, A Player Wins:

25 After nine moves, a player wins by having placed more tokens, or if both players have placed the same number of tokens, by having placed the last token. The winning player (or survivor) collects the game value.

Alternatively, a new game can be started. The starting game value of the new game is, equal to the ending game value of the previous (no winner) game.

5     Game Value:

Each game generally starts with a game value of 1. Each tie increases the game value by 1 (optional). Doubles, multiply current game value by 2. The winner of the game receives the game value.

10

Double Tile & Bluffing (Optional):

A player may double the game value by "giving" the double tile to his opponent. At the start of the game, the double tile is held by neither player. The first double may be given by either player, at any time. The player who doubles gives the double tile to his opponent. After the first double, only the player who holds the double tile may double. Therefore, no player may double two times in a row.

20

Accepting or Rejecting the Double:

After one player doubles, the other player has the option to accept or reject the double. If the double is accepted, then the game value is doubled and the scoring peg is moved to the appropriate value. If the double is rejected, then the game ends with the game value unchanged and the player who doubled wins.

25

Bluffing:

5       The Double tile introduces the possibility of bluffing. For example, if player X can win on the next move and his 9 is unplayed, while player O has used his 9 - player X has a classic doubling situation. Player X's next card could be a 1, but player O is likely to be bluffed out since player O knows that player X has a higher card than any of his cards.

10       If player X doubles in this situation with a low-numbered card coming up next, player X is making a bluff.

15       If player X doubled with a 9 next, player X is assured a victory. But the player being doubled does not know whether it is a bluff or a guaranteed win until after the player accepts or rejects the double and the next card is played.

Doubling:

All doubles multiply the game value by 2. The game value starts at twice the game bet and is doubled by each double. The player may not double two times consecutively. Once a player has doubled, he must wait for his opponent to double before doubling again.

Examples:

a) The counter is at 1.

1.

Player X doubles and Player O rejects, X wins 1 point.

2.

Player X doubles and Player O accepts, then the eventual winner must get at least 2 points.

b) The counter is at 3.

1.

Player X doubles and Player O rejects, X wins 3 points.

2.

Player X doubles and Player O accepts, then the eventual winner must get at least 6 points.

Prizes:

The chart below demonstrates sample jackpot, payoffs for tournaments of 8, 16, 32, 64, 128, 256, 512, 1024 and 2048 players.

JB = Jackpot Bet.

# of Players	Rounds of Play	1st Place Payoff	2nd Place Payoff
8	3	6*JB	1*JB
16	4	12*JB	2*JB
32	5	24*JB	4*JB
64	6	48*JB	8*JB
128	7	96*JB	16*JB
250	8	192*JB	32*JB
512	9	384*JB	64*JB
1024	10	768*JB	128*JB
2048	11	1536*JB	256*JB

So, for example, if there is a tournament of 512 players, and the Jackpot Bet=\$10, the tournament winner would win \$3,840, the second place finisher would win \$640, and the remaining \$640 would go to the game organizer for expenses associated with the tournament. Other variations of tournament jackpot may also be used, and are considered within the scope of the present invention.

THE TOURNAMENT:

The tic-tac-toe and numbered card combination tournament is similar in structure to a tennis tournament. Each tournament starts with a field of 8 to 2048 players. Opponents play one-on-one games of tic-tac-toe. The winner of the game advances to the next round of play, and plays another game against a new opponent. The field is cut in half each round until two players remain for the finals. The winner and second place finisher divide the tournament jackpot (see previous discussion relating to tournament payoffs).

To enter a tournament, players choose a jackpot bet amount (in player setup). Players who choose the same jackpot bet amount are grouped together in a knockout tournament.

#### In Each Tournament Round:

Players are paired off. Each pair makes a game bet and plays a game of tic-tac-toe. The winner of each game wins the game value (see doubling and game payoffs). The winner advances to the next round of the tournament.

#### Player With The Higher Number

The player with the higher number can double (if possible). Then the player with the higher number

place a token. Next, the player can accept or reject a double from other players (if given).

Player With The Lower Number

5           The player with the lower number can accept or reject a double (if given) by another player, such as the player with the higher number. The player with the lower number can double the bet for other players (if possible).

10           NETWORK CASINO ENVIRONMENT

          The system for an interactive network of players being dynamically grouped into knockout tournaments, where winners are paired off through successive rounds  
15           until a victor is determined, where each player has his own electronic console connected to the established network through which he can interact with any other player, all of which is controlled through a series of network servers which determine the field for each  
20           tournament and which control the play of each game and control the betting and the accounting functions and provide for managerial control consoles and managerial output devices for security and accounting purposes.

          Inclusive within the concept of dynamic grouping  
25           of players are the following:

- \*       That the set of players available to form a tournament is constantly changing.



- \* Players who have just lost a game in an ongoing tournament are immediately available.
- \* Players who have just sat down at an available station and have informed the INKTGS (Interactive Network Knockout Tournament Gaming System) of their GPP (Game Preference Parameters), that is, (a) Game Choice and (b) Game Bet
- \* Players who have just completed play and wish to Quit Out of the system - or - to change their GPP (Game Preference Parameters).
- \* Players who are currently playing in an ongoing tournament, but, will lose their game before the next tournament, that is being formed, starts.

The dynamic grouping logic of INKTGS allows for the formation of the largest tournaments possible - within pre-established tournament setup time constraints. The fundamental constraint of the dynamic grouping logic is that no player should wait more than a limited and casino specified time before playing - for example, 20 seconds. For the benefit of the casino and the players the game duration is minimized by:

- \* Using the optimum hardware available, that is, very high speed workstations and very powerful network servers with fiber-optic links. Touch Screens are used throughout INKTGS. Note the scope of this invention is not in any way limited to the hardware configurations described herein. If at

any time in the future, because of new technology, faster processing becomes available then the use of that technology is not precluded from the scope of this invention.

- 5       \*     Time Bar constraint displays will clearly notify players to speed up their play or suffer the consequences of a possible tournament forfeit.
- \*     Pre-stored Pic-Quick Sequences allow for one-touch entry of game strategy.
- 10     \*     Using special tie-breaker rules for tournament play, so that games do not go beyond the playing out of the nine number sequence.

One example of a game that is suitable for the network casino environment is what is called PIC-TAC-TOE. PIC-TAC-TOE has the following features and advantages suitable for computer implementation:

- 15       1. The rules of the game of tournament Pic-Tac-Toe can be explained in less than one minute. Play starts with each player choosing a nine number sequence which uses each of the numbers from 1 to 9 once and only once. The numbers of the two sequences are revealed and compared position by position - the player who has played the higher number in the first position gets to place his first token (X or O) on a standard  
20       tic-tac-toe grid. The second position numbers are similarly revealed and compared and the player who has  
25

played the higher number again places his token (X or O) on the tic-tac-toe grid. The object is to make tic-tac-toe, that is, three X's or three O's in a row or column or diagonal, if a player accomplishes this - he wins. The game bet can be doubled by either player, if that player feels that he has a significant advantage. The double can be refused or accepted. If refused then the game is over and the doubler wins.

2. The game's four levels of strategy can be mastered in five minutes:

(a)

The strategy of choosing a sequence of nine numbers. There are no "master" strategies, in fact, it can be easily shown that any strategy can be defeated with ease. Although it is not totally a game of luck - it is mainly so.

(b)

The strategy of placing the X's and O's follow the strategy of tic-tac-toe, but not completely.

(c)

The strategy of using the knowledge of what numbers have already been played - can effect doubling and placing of the X's and O's.

(d)

The strategy of doubling is to either; maximize victory or to bluff and force an opponent to give

up even when victory would have been his without the double.

5 3. A game (round) of tournament style Pic-Tac-Toe can be played from start (the game bet) to finish (the payoff) in less than one minute. Therefore an entire tournament can be played in "n" minutes (where 2n, represents the number of players in a tournament - for example 32 players or 25 players can proceed from the opening round to the conclusion of the finals in 5  
10 minutes.)

15 4. Since the network is capable of handling an unlimited number of players it is conceivable to have "n" reach two digits, that is, more than one thousand players ( $2^{10} = 1024$ ) and therefore create enormous jackpot payoffs. For example, if 1024 players each put up \$10 toward the tournament jackpot - someone is guaranteed to win approximately \$10,000 in less than 10 minutes. Tournaments, per se, are common to casino environments, but, they normally last for days to  
20 accomplish the payoff structure that is offered by tournament Pic-Tac-Toe in minutes.

25 5. As to the "fairness" of the game - it is claimed here that there is no fairer game. In fact, Pic-Tac-Toe may be the only known "fair" game. There is no opening move advantage, no positional advantage, in fact, there is no advantage at all to either player before or during the game.

6. As to the question of "security", it is claimed that there is no way to cheat or compromise the game. The claim is based on two facts, (1) you have no way of knowing who your opponent is - and - (2) your entire strategy is "locked in" before your opponent is even chosen.

7. As far as the casino's "win per machine per month" it can be demonstrated through conservative profit models that the casino will surpass the typical "slot win" figures. An unheard of benefit to the casinos.

The following discussion relates to FIG. 12 for the hardware configuration of the network casino:

**N1. File Server**

Location: In Control Room.

Hardware: Pentium based Compaq Rack Mount Server System with Mirrored Servers via a fiber link and standby hot-spare.

Operating System: Novell Netware 4.1 SFT.

Function: Central file storage for all stations. The file server is where all data is written to, all current game situations are stored and the central validation point for all connections.

**N5. Master Game Server.**

Location: In Control Room.

Hardware: Pentium based Compaq Rack Mount Server  
System with standby hot-spare unit.

Operating System: Microsoft Windows NT 3.51 Advanced  
Server.

- 5 Function: Establish sessions between idle stations,  
finds another game station within any game server  
domain and joins the game stations in a session.

**N10. Game Servers.**

Location: In Control Room.

- 10 Hardware: Pentium based Compaq Rack Mount Server  
System with standby hot-spare unit.  
Operating System: Microsoft Windows NT 3.51 Advanced  
Server.

Function: Controls a domain (group of game stations).

- 15 A game server is the "scorekeeper" of each game in  
progress. The game server controls the start, play,  
end and payout of each game in its domain. The game  
server does not determine the participants. That  
function is controlled by the Master Game Server (N5).

20 **N15. Supervisory Stations.**

Location: On Casino Floor.

Hardware: Pentium Based Compaq Desktop Unit.

Operating System: Microsoft Windows NT 3.51  
Workstation.

- 25 Function: To monitor games in progress, allow  
supervisor to check game flow, receive message from  
monitoring hardware in case of malfunction or user help

request. A supervisory station monitors games for circumstances such as unresponding players, unusually large game in progress or other issues regarding the continuation of play.

5      **N20. Gaming Stations**

Location: On Casino floor.

Hardware: Pentium Based Compaq Desktop Unit in Kiosk Cabinet with Touch Screen.

Operating System: Microsoft Windows 95

10      Function: Actual play station for participating in a game.

**Game Flow Overview for Network Hardware**

1. Gaming Stations (N20) ask Master Game Sever (N5) for a "request to participate".

15      2. Master Game Server (N5) assigns Game Station (N20) to a Game Server (N10) for a "session start".

3. Supervisory Station (N15) is informed of a new game forming and its participating stations.

20      4. Game Server (N10) ends further participation and a "begin game" is initiated between all participating Game Stations (N20).

5. Supervisory Station (N15) is informed of a new game starting and its participating stations.

25      6. As play progresses, all "moves" by games stations are recorded to the File Server (N1).

7. Supervisor Station (N15) is kept informed of any unusual circumstances or malfunctions in system.

8. Upon game completion, Game Server (N10) disconnects all participants from closed game "and session".

9. Return to step 1 for new game.

#### Computer Process for PIC-TAC-TOE Tournament

The following is a description of the play game routine for the PIC-TAC-TOE tournament version. One form of software that may be used to implement the PIC-TAC-TOE tournament is found in co-pending patent application, entitled INTERACTIVE GAMBLING CASINO SYSTEM to Howard M. Marks et al. filed on February 13, 1996, serial number 60/011,574, the details of which are incorporated herein by reference. Alternatively, the software used to implement this tournament version is included in the Appendix of copending provisional patent application, entitled PICK 'EM POKER TOURNAMENT GAME AND INTERACTIVE NETWORK COMPUTER SYSTEM FOR IMPLEMENTING SAME to Anthony M. Singer, et al., filed on June 14, 1996, serial number 60/019,747, the details of which are incorporated herein by reference.

The software process described herein is designed to handle or interact with the specific screen displays illustrated in FIGs. 19-29, described in detail below. FIGs. 13-18 are flowcharts of the computer implemented process provided by the software for the network casino environment in provisional



patent application serial number 60/019,747,  
incorporated herein by reference.

FIGs. 13-20 are flowcharts of the computer  
implemented process in accordance with the present  
invention. The master server loop is constantly  
running for master game server N5. Master game server  
N5 checks for messages coming from a player in a game  
station.

In FIG. 13, master game server N5 checks for the  
message in step A2. As soon as the player has  
requested a 1 on 1 game, not a tournament game in step  
A4, then the master server loop being run by the master  
game server N5 will then check whether there are other  
players that have the same criteria to play with in  
step A6. The same criteria relates to betting the  
allowed or prescribed denominations. The same criteria  
might also relate to other criteria such as playing the  
same variation of the tournament game. For example,  
variations of PIC-TAC-TOE has been described above and  
include whether a straight single order of the cards, a  
variation 3, or a 1+1 variation of PIC-TAC-TOE is being  
used.

Further criteria for same game criteria include  
maximum betting selections. For example, the player  
may decide to have no doubles, a maximum of two doubles  
or three doubles for the one on one game. Thus, the  
master game server N5 provides the player the option to

protect herself from betting too much by setting an upper limit. Thus, the tournament also has the capability of setting different upper limits for different groups of players to enhance the number of players that will be interested in playing in the one on one game.

After the master game server N5 checks for whether the players have the same criteria in step A6, the master game server N5 will then call the gamer servers N10 which are being used to determine whether or not there is any free space to play a game in step A8. That means that if the game servers are at capacity, they cannot run the next game and so they put the master game server N5 request on hold. Basically, the master game server N5 is notified to poll a different game server N10 and will keep polling game servers N10.

In step A10, the master game server N5 is going to be receiving the message from the gamer server N10 indicating whether or not it has space to run the next game. In step A12, the master game server N5 determines that based on the responses from the game server(s) N10 that it could not find any compatible players for playing the game and so master game server N5 puts this player in the queue for the next game on the next available game server N10. The master game server N5 then goes back to the beginning loop again and it sees if it can find additional players.

If the master game server N5 has received the response from the game server N10 in step A10 with a compatible player in step A14, it sends a message to the game server N10 and both compatible players with the logical location of each other. That is, the master game server N5 sends the game stations N20 the location of each players in step A16 so that the two players can play against each other the tournament PIC-TAC-TOE game. Control is then passed from the master game server N5 to the game server N10.

The game server N10 is basically constantly polling the game stations N20 at the same time. The game server N10 sends messages to the master game server N5 and both player game stations N20. Next, but essentially simultaneously, instead of finding out that the request by a player was to play a one on one game, the player has requested a tournament game in step A18 as determined in the check message process in step A2. The master game server N5 then polls the game servers N10 for availability for players that have requested the tournament in step A20.

At step A22, the master game server N5 then processes the message received from a game server N10. The game server N10 returns a message of either yes, I have players that want to play tournaments or no, I do not have players that want to play tournaments. When the master game server N5 finds additional players that

want to play the tournament in A24, it then will also send the message to the game server N10. The game server N10 will then initiate its own processes, described below, and the master game server N5 continues its process.

In step A22, if no available tournament is found, in step A26, the master game server N5 then tells the appropriate game server N10 to begin a new tournament. If the master game server N5 does not find the needed game server N10, the master game server N5 polls the game server N10 until it finds one that has room for this tournament and actually tells the game server N10 to begin a brand new tournament. Thus, the fact that no tournament is found in step A24 means there is no tournament that has been found at this moment where this player can get into and play at this point in time.

The first time the master game server process is used, a first player is placed in the bracket for tournament competition. The next time the master game server process is used, a second player comes enters the tournament via step A24 and not step A26. Thus, when the step A26 is used, a first player has already initiated the tournament. Based on tournament related criteria, such as maximum number of players, amount of wager, timeout, and the like, players are grouped into tournaments.

Tournaments are generally broken up into multiples of eights, e.g., 8, 16, 32, 64, however, other combinations are of course possible. So, players generally wait until the right number of players have been grouped together. Larger tournaments are generally preferred, and therefore, wait times might also be imposed to determine whether a larger tournament is possible.

The game server loop then takes over, having been initiated by the master server loop. The game server loop via the game server N10 checks for a message being received from one of the game stations N20 or master game server N5. FIGs. 14-15 are flow charts of the process when the game server N10 receives a message from the master game server N5. In step B2, the game server N10 checks for the message, and in step B4 determines that the message that is received was from the master game server N5. Game server N10 then analyzes the message, and determines whether the message was to request a new tournament, to add a player to a tournament or to request a one on one game.

In step B6, the game server N10 determines that the request was for a one on one game. Game server N10 receives the request for players that want to play a one on one game. The request from the master game server N5 relates to whether or not game server N10 has space to play a one on one game.

In step B8, the game server N10 composes and sends a message with an answer to the master game server N5, indicating either yes or no. If the answer is that game server N10 has no space right now in step B9, then the master game server N5 has to poll a different game server to see if there is additional space on it to play the one on one game.

If the game server loop responds in step B10 that there is space to set up a one on one game, then the game server N10 will respond to the master game server N5 in step B10, and will also respond to the two players in the game stations N20 in step B12 that it is ready essentially to initiate the one on one game. Upon either finding two players to play the one on one game, or determining that no game server N10 is available, the game server N10 will go back again and restart the process.

Assuming that the message from the master game server N5 is to request a tournament, there are two types of tournament requests. In step B14, the game server N10 determines that a player is to be added to an existing tournament set up by the master game server N5. The game server N10 then places the player in a bracket in step B16.

Brackets are generally made up of eight players. A bracket is essentially a set of players which are going to be in the next tournament. In step B16, each

of the players are placed in a bracket which consists of either 4, 8 or 16 players, and in step B18 illustrated in FIG. 15, the game server loop then determines whether there exists a pair of unassigned  
5 players in the bracket.

If there is existing a pair of unassigned players in the bracket in step B18, then in step B20 the game server N10 then sends the message to both players to begin play, to play the first round of cards, and  
10 coordinates the play of the game in step B21 via the game station/player work station routine described below. If there is not a pair of unassigned players in the bracket in step B18, then in step B22, the game server N10 then determines whether there is a first  
15 player in the pair, i.e., whether the player which exists in the bracket is the first of the pair.

If the player is the first in the pair in step B22, then the game server N10 will send a message to player 1 to pick cards in step B24, and in step B26 the  
20 game server N10 will tell player 1 to wait until the game server N10 has detected and set up the game for play with the second player. If it has been determined by the game server N10 in step B22 that the player is not the first player in the pair, then the game server  
25 N10 determines that the player is the second player in the pair for the tournament in the bracket that desires to play the game.

The game server N10 then sends a message to player 2 to pick their appropriate cards. At this point in time, there are two players which have been matched up for a tournament game that have picked their cards. In step B24, the game server N10 will then send a message to both players 1 and 2 to play the game, and will coordinate the play of the game, and this pair of players in the tournament.

Alternatively, the message which has been received by the game server N10 from the master game server N5 may also include the desired picks or selections of each of the players that are to be participating in the tournament. At that point in time, it would not be necessary for each player to make the necessary picks of cards because that will have already been done and coordinated by the master game server N5 prior to the request from the master game server N5 to the game server N10.

If the message from the game server N10 requests to add a player to the tournament, but there is no tournament that is currently forming to accept the player, then the game server N10 notifies the master game server N5 that there is no tournament in step B28. The master game server N5 can then either recall this game server N10 at a later time, or it will go into the next game server N10 that might have an available tournament.



If the message received from the master game server N5 in step B4 requests to start a new tournament in step B30, the game server N10 will compose a message with its answer in step B32 indicating whether there is additional space and time on that game server N10 for forming the new tournament. The game server N10 will then send the response to the master game server N5 in step B34, whether or not a new tournament game can be formed.

If the new tournament game can be formed in the game server N10, then the next message from the master game server N5 to the game server N10 will include a player that will be added to the tournament.

If the message is determined in step B2 by the game server N10 to be from the player, the control then reverts to the message from player routine in step B36. FIGs. 16-18 are flow charts of the message from player routine. The various messages received from the player can be that the picks are ready in step C2, that the player is ready for the next card to be drawn in step C6, the player wishes to make a double in step C10, the player is either accepting or rejecting a double of another player in step C30, and the player is ready in step C42.

The use of the ready button or switch is as follows. If a player enters or wagers a token, the ready button will appear to give the other player the

opportunity to make a double. At that point, as soon as all players are ready, then the next card/number will be drawn. Thus, the ready button provides the opportunity for players to make a double, as well as to insert pauses into the game play when necessary.

In step C2, the message from the player indicates that the player has picked her card and is now ready to play the game. And then step C4 sends a start game message to the game server N10, and both players indicate that the play is to begin, i.e., that it is ready to play. The message in step C6 is that the player wishes to go onto the next card, i.e., the players have indicated that they are ready for the next number. In step C8, this next number message is sent to the other players. The player cards are then compared to each other, and each of the player's cards are exchanged to the other player, so that both players are able to see their own card, as well as the other player's card displayed.

The game server N10 then determines who is the winning player for that round, and then prompts that player to make the next move. The player who has won that round will then make the next move to place the X or the O playing piece in the desired space. That information will also get sent to the other player so that both players have the same game board.

In step C10, the message is that the first player wants to double the stakes of the game. The double request will then be sent to the other player in step C12 to determine whether or not the other players wish to accept the double, described in more detail below.

Another message that is received from the player is the actual placement of the X or O on the screen in step C14 for the player who won that round. In step C16, the game server N10 determines, based on the additional placement of the X or the O, whether a player wins. If it is determined that a player wins in step C18, the game server N10 then determines what kind of game is being played, i.e., whether a tournament or a one on one competition.

If it is determined that a tournament competition is being played in step C18, in step C20, the player who has won that round of the tournament advances to the next game to play the winner of another pair in the tournament. At step C22, the game server N10 then creates a new bracket to play so that winners of the last round of the tournament can play each other in the next round in the tournament. In step C24, the game server N10 will then send a message to both players in the new bracket to start playing the game.

The game server N10 also determines at substantially the same time step C22 is performed, whether the losing player of the tournament wants to

start the tournament over again at the beginning level in step C21. If the losing player says no, then the tournament ends for the losing player in step C25. On the other hand, if the losing player says yes, then the game server N10 determines whether the ongoing tournament is still open to receive new players in step C23. If the tournament is closed, then the game server N10 ends the tournament for the losing player. If the tournament is still open, then the game server reverts control to step B16. This is a significant advantage because it maximizes the number of tournament entrants for a given tournament.

FIG. 17A is a conceptual illustration of the advantages of this concurrent re-entry tournament feature. In FIG. 17A, the first tournament match between players A and B occurs at 102. In this match, player B loses, and player A wins and advances to the next round. The second tournament match between players C and D occurs at 104. In this match, player D loses, and player C wins and advances to the next round. In the second round of the tournament, player A plays against player C at 114.

Substantially simultaneously with this second round of play, or prior thereto, player D utilizes the concurrent re-entry tournament feature and plays against player E in match 106 by re-entering the tournament via 110. In this match, player E loses, and

player D wins and advances to the next round.

Similarly, player B utilizes the concurrent re-entry tournament feature and plays against player F in match 108 by re-entering the tournament via 112. In this match, player F loses, and player B wins and advances to the next round. While the concurrent re-entry feature was illustrated in the first round of the tournament competition, this feature can be used at any round so long that the tournament has not advanced to a stage that the final round or pre-designated final rounds of play are about to be played or in progress.

In the final round of play 118, player A loses and player B wins the round and the entire tournament. In this scenario, player B actually lost the first round of the tournament and re-entered to win it all. Thus, the concurrent re-entry feature provides additional excitement and maximizes tournament participation.

Returning to the game server process, if it was determined in step C18 that the game type was a one on one competition and there is a winner, then in step C26 the message is sent to both players, essentially requesting whether or not they want to replay in addition to, of course, indicating the winning player. The winning player will then get the award at that point in time and the player that has lost will get deducted or credited from their account as appropriate.

Another message which is possible to receive from

the player is whether or not that player wants to accept or reject the double in step C30, which double that was initiated in step C10 by another player. If the player accepts the double in step C32, then the game value is then increased in step C34 by the game server N10, and now the new game value is sent to both players so that they know what the current stakes are of the game in step C36. If the second player rejects the double in step C38, then a message is sent to the other player in step C40 that this player wins the game because of the other player's refusal to accept the double. The winner and the steps for awarding the winning player the appropriate award are performed as described previously in connection with steps C16-C28.

Another message that may be received from the player is that the player is ready in step C42. This ready message is transmitted to the other player or players in step C44, indicating that the player is ready for the next move or round of play.

Another message which can be received from the players is that whether or not that player wants to replay the same player that she played before either in tournament or one on one competition in step C46, generally in a one on one game. If the game server N10 receives a request to play the same player, then in step C48, the game server N10 determines whether the second player also wants to replay the first player.

In other words, game server N10 determines whether there is a mutual decision for both players to play each other.

If it is determined that both players want to replay each other in step C50, then the next one on one game is started in step C52. If both players do not want to play each other in step C54, then a message will be sent telling both players to find new players to play in step C56 for the next tournament or one on one game.

FIG. 19 is a flow chart for the individual player work station or game station N20 which processes the game being played in the tournament from the player's prospective and which is under the coordination of the game server N10. In step S2, the individual player work station N20 essentially waits for activity from the player, and determines that there has been some type of game request from the player. In step S4, the game station N20 then determines the type of game which has been requested by the player.

If the game station N20 determines that the player has requested a one on one game in step S6, then the individual player work station N20 requests the players for a particular dollar amount for play in step S8. The players then play the regular one by one game in step S10 which will be discussed in detail below. After the game has been played, then in step S12,

(second side) if after the game has been completed in step S10, the individual player work station N20 prompts the player whether or not the player wants to play again in step S12.

5           If the game station N20 determines that the player wants to play again in step S14, then control of play is reverted back to the play regular one on one game in step S10. If, however, the player does not want to play again in step S14, then the individual player work  
10       station N20 continuously monitors the input received from the player in step S2 to determine when a player has requested to play a new game.

          If the game type is determined to be a tournament game type request from the player in step S4, then  
15       control of the game station N20 is directed to step S16 for the tournament competition. In step S18, the individual player work station N20 obtains a list of the available tournaments for which this player can enter from one or more of the various game servers N10.  
20       The individual player work station N20 obtains the list of available tournaments by sending messages to the various game servers N10 in step S18a, and receives responses from the game servers N10 in step S18b regarding whether or not a tournament is available for  
25       the requesting player. The individual player work station N20 then compiles a list of the available tournaments which the player can enter, and then



provides that list of tournaments to the player. The player then chooses a tournament from the available tournaments in step S20.

5 In step S22, the game station N20 determines the particular tournament which the player has chosen, and that player is then added to the bracket of players in the chosen tournament in step S24. The number of players for the bracket for the chosen tournament is then left open until a predetermined time, or until the  
10 number of players exceeds the maximum bracket which could be 8 or 16 or whatever might be considered part of the tournament characteristics.

In step S26, the player begins playing in the bracket by reverting control to play of the regular 1 x  
15 1 game routine in step S28, which is discussed below. That is, even though the player has requested a tournament game, the actual game between the two players is advantageously implemented using the standard 1 x 1 (or one on one) game routine, thereby  
20 maximizing reuse of the network architecture. After the play of the 1 x 1 game routine is completed, the individual player work station N20 determines that the game is over in step S30.

25 If the game station N20 determines that the player loses and the game is over in step S30, then control is then transferred to step S2, and the individual player work station N20 then waits for another request from

the player. If the player wins in step S30, then the player that has won this round of the tournament will then play a selected winner of the same round in the tournament. If, however, there are no additional  
5 players in this winning round in the tournament, then this player that has won this current round is clearly the winner, and this player obtains the jackpot for the game.

FIG. 20 is a flow chart of the regular game  
10 process. The regular game process is specific to the PIC-TAC-TOE game, which is described in great detail in a co-pending patent application, entitled COMBINATION TIC-TAC-TOE GAME AND NUMBERED CARD COMPETITION to  
15 Howard M. Marks filed on February 1, 1996, serial number 08/595,133, now U.S. Patent Number 5,580,059, the details of which are incorporated herein by reference.

Note that discussion of this particular PIC-TAC-TOE game, as described herein, is not intended to limit  
20 the scope of the network architecture described herein. That is, the network architecture described herein which utilizes the combination of master game server, game server and game stations can be utilized for any types of games where players compete against each  
25 other, either in a one on one competition, or even more than two players.

Rather, the discussion of the PIC-TAC-TOE game is merely an illustration of one type of computerized game that can be played on the network architecture of the present invention. Other types of games can also be  
5 utilized on the network architecture described herein.

In the routine for playing the PIC-TAC-TOE game, the game station N20 displays a number selection screen in step P2. An exemplary number display screen is illustrated in FIG. 23. The number selection screen  
10 includes the ability for the player to select a unique set or sequence of numbers, or optionally select a pre-designated sequence of numbers which is provided by the computer system. In step P4, the user selects a sequence of nine numbers from 1-9, and once the  
15 selection is complete, the player presses the ready button in step P6.

Of course, other types of sequences of numbers can be used, and any types of cards can also be utilized as long as the cards represent a ranking scheme. For  
20 example, picture cards can be used such as ace, king, queen, jack, etc. in place of a numbering scheme 1-9. In step P8, the game station N20 waits for the game server N10 to indicate that the other player has also pressed the ready button.

25 Note that the player also has the option of designating their pre-selected sequence of numbers and/or cards which can be maintained for a

predetermined time period at which that player is sitting at the console of the game station N10.

Returning to step P10, once both players have pressed the ready button, and are ready to play the game, the game station N20 will display the main PIC-TAC-TOE board in step P10, and the game server N10 will send the next number from each of the player's card hands to each other in step P12.

The game server N10 will then indicate the player which has the higher priority card and which can then place the next marker (e.g., X or O) in step P14.

After the game server indicates which player should then place the next marker on the PIC-TAC-TOE board in step P14, the player with the winning number selects the position on the game board for the marker in step P16, and the position is then sent back to the game server N10 from the game station N20 in step P18.

Next, the game station N20 that has placed the marker in the current round waits for a response from the other player in step P20, for example, if the other player decides to double at that point in time.

Control is then reverted to step P12 for the game server N10 to then transmit the next hand to each of the players. When the position is sent from the game station N20 to the game server N10 in step P18, the game server N10 will then notify the other player of

the new move and place the appropriate marker in the designated position.

Substantially simultaneously with the above process conducted in steps P14-P20, a check for a player double request is conducted in steps P14a-P14g. In step P14a, the game station N20 displays the double button if doubling is permitted, and in step P14b, the game station N20 determines whether the double button has been pressed. If the double button has been pressed in step P14b, then the double message is sent to the game server N10 in step P14c, and the player that has doubled then waits until the second player either accepts or rejects the double in step P14d.

In step P14e, it is determined whether the other player accepts the double, and if the double is accepted, the game value is doubled in step P14f. The double button is then removed from the screen or deactivated at step P14g to prevent any further doubling of the bet at this point in the game. If the second player rejects the double in P14e, then the game is then determined to be over in step P14h and the player that has initiated the double is considered the winner.

Substantially simultaneously with the check for player double process, is the process for checking the response received from the player that is being doubled. In step P14i, the work station N20 polls the

game server N10 to determine whether the other player has requested a double, and if the other player has requested a double, as determined in step P14j, then the accept/reject message of the double is displayed in step P14k. The player is then prompted to either accept or reject the double in step P14l. If the player accepts the double, the game value is then doubled in step P14m and the game then continues as discussed previously. If, however, the player rejects the double, then the game is over in step P14n and then there are various options for transmitting the next message to the player from the game station as discussed previously, such as whether or not the players want to replay each other, and the like.

FIGS. 21-30 illustrate various interface screens utilized by the network casino system. FIG. 21 is the main menu or interface with the user, where various different denominations are illustrated for both the jackpot and entry fee. FIG. 22 illustrates when the player has selected a one on one competition for a \$50 game. FIG. 23 then illustrates the user selection display where the player either selects the order of the numbers 1-9 on his own, or selects an order via the six pre-canned orders at the bottom of the display screen. The insert buttons are used to indicate which position a specific number is to be inserted, and the switch button permits players to switch positions of

numbers on the screen. . Note that to facilitate use of the user interface, a touch screen display is preferably used so that the user can more easily enter the selections. FIG. 24 illustrates after the user has selected the numbers 1-9. Note that the sequence of 456987321 is available via a single selection at the bottom of the display screen.

FIG. 25 illustrates the display a player receives that has completed his/her selection, but the other player in the competition has not completed his/her selection. FIG. 26 illustrates the second player's display, i.e., player O. In FIG. 26, player O has the number combination illustrated 567894321, but only has the first number 4 of the combination of the other player, player X, that has selected the combination of numbers in FIG. 24. In this first round, player O's 5 is of a higher priority than player X's 4, and therefore, wins the first round.

FIG. 27 illustrates the progression of play after four rounds, where player O wins the first three rounds of play, but player X wins the fourth round of play. Arguable, player O should have already won because if the first three rounds are won by the same player, the PIC-TAC-TOE game is also won. Note the first three Os in the right hand column of player O's number selection indicating that the first three rounds were won by

player O. A similar display is made for player X, where player X has only won the fourth round.

FIG. 28 illustrates the display the player will view while the other player decides where to place their marker when they have won the round of play.

FIG. 29 illustrates the display each player will view between rounds of play, providing the players the opportunity to double. The doubling feature is most commonly used for one on one competition, but it may also be used in tournament competition.

FIG. 30 illustrates the display viewed by the player that have won the round of play generally for the one on one competition, since the players have the option of replaying each other. The tournament competition would unlikely have this feature since the winning player advances to the next round, while the losing player has the option of re-entering the tournament.

#### SLOT-TAC-TOE INDIVIDUAL PLAYER GAME

SLOT-TAC-TOE has the same board as PIC-TAC-TOE. The difference between SLOT-TAC-TOE and PIC-TAC-TOE are that in SLOT-TAC-TOE the player is playing against the computer, similar to a regular slot machine. The computer scrambles two sequences of numbers, one sequence for the player and one sequence for the computer. The player does not get to choose the



strategy. This is very significant. So there are two  
nine card sequences that are generated, for example,  
representing the numbers from 1 to 9. The player views  
his own set of nine cards of the sequence, but does not  
5 see the computer's nine card sequence.

An overall description of the SLOT-TAC-TOE game is  
described hereinafter. The one fundamental difference  
between the player set and the computer set of cards or  
numbers is that one of the cards in the computer set is  
10 a joker. Therefore, there is one joker or high card  
for the computer only. The joker is better than  
anything; considered, for example, a ten card where  
both the computer and the player sets of cards are the  
numbers 1-9. In addition, the player also has the  
15 optional capability to bet to win or bet to lose. If  
the player bets to lose against the computer, the  
computer reverses the value of the joker to make it  
more likely that the player will win. Thus, the player  
can look at the sequence and decide whether the player  
20 will win or lose. Advantageously, the player is able  
to receive better than one-to-one odds because the  
player has the disadvantage due to the computer having  
a joker. The reason why the house has a joker in a  
predesignated position, such as in the first three  
25 positions or the first six positions of the nine card  
sequence, is to be able to provide a good return to the  
player in the event the player wins the game against

the computer. Thus, the player is not going to get one-to-one odds or less than one-to-one odds. Rather, the player is going to get better than one-to-one odds because the odds of winning are much less than one-to-one, thereby making the game more exciting.

Put in other words, because the player has a disadvantage, the house (i.e., computer system) can afford to give the player better odds on the return of the player's wager/investment. Thus, the player's return is greater or better than even money. The player can also make a bet, for example, on a specific position or a specific combination of cards that will beat the computer system. For example, the player can bet or wager, for example, that the player will win on the ninth move on the tic-tac-toe board. Because this is very difficult to predict, and almost impossible to accomplish, the computer provides the player, for example, 100 to 1 or 500 to 1 odds.

In addition, the computer implemented SLOT-TAC-TOE system will also permit the player to make multiple bets on different ways of winning. For example, a player might wager one dollar or token (i.e., no cash value) to win in nine moves, and five dollars (or five tokens) to win in five moves. A player might also simultaneously bet three dollars (or three tokens) to lose in four moves. Once the player makes the multiple

bets or wagers, the player can then start to play the game.

What prevents the dealer from just dealing a card hand of joker, 9, 8 on every round? The computer cannot always play this hand because the computer's hand is a totally random sequence. Both player and dealer sequences are totally random sequences requiring a random number generator.

Thus, a person sitting at the SLOT-TAC-TOE computer system can make bets that were never able to have been done previously. In addition, the SLOT-TAC-TOE system provides two other features. First, if a player chooses a secret sequence that matches the one the computer is storing, there is a progressive jackpot available to the player/winner. So the computer stores a special nine card sequence. If the computer has the nine cards that match the sequence, then the player wins the progressive jackpot which is being accumulated by taking a small percentage of the house's winnings from all the players in the casino. What are the odds of doing that? Approximately 365,000 to 1 (i.e., factorial 9 or 9!).

The second option or feature is the spin and win feature. If a player wins, the final or preselected configuration on the tic-tac-toe board is spun like a slot machine for a chance to win an even higher prize. In other words, just like a slot machine, all of a

sudden the Xs and Os start rotating and if they fall into a certain pattern, like three Xs, the player wins again adding to the previous winnings. Of course, the number of player Xs or Os depends on how many moves it takes to actually beat the computer. There are, for example, at least three player Xs, and there could be more.

This ability to spin and win may also influence a players strategy when playing the initial PIC-TAC-TOE game against the computer. For example, a player may opt not to win the initial game too quickly, thereby maximizing chances of winning the spin and win round. A button or prompt permits the player to decide whether to exercise the spin and win option. The player can either take the winnings and go on to the next game or select the spin and win option. If the player chooses to spin, then the Xs and Os start spinning like a regular slot machine. If the Xs, for example, fall three in a row, column or diagonal, then whatever the player just previously won is multiplied.

A detailed description of the SLOT-TAC-TOE computer system and computer-implemented process is now described. The following issues are presented regarding SLOT-TAC-TOE:

Description of the Game

Understanding the Game's Underlying Principles

The Calculation of the Odds of Winning

Move Strategies

Wagering (for points or money)

Payoffs and Bonus Payoffs (Spin N' Win)

5      **The Object of the Game**

SLOT-TAC-TOE resembles PIC-TAC-TOE in the following ways:

10      There is a nine box PIC-TAC-TOE grid and two sequences of nine number cards (for example, using the numbers 1 through 9). Each of the cards are compared position by position in a predetermined sequence, with the possessor of the higher number at each position being entitled to place a token, for example, an X or O, on the PIC-TAC-TOE grid. The winner is the player  
15      who places three of the same tokens in a row, column or diagonal on the playing grid. However, in SLOT-TAC-TOE, the player's opponent is the computer machine itself, not another player as it is in PIC-TAC-TOE.

20      **Choosing the Sequences**

Before wagering, the player, for example, either:

- a)      Enters the first three numbers the player wishes for the initial sequence, and the computer randomly generates the remaining six positions, or  
25      b)      Requests the computer to randomly generate the entire nine number sequence.

Other ways of determining the sequence of nine digits can also be used. In either case a) or b), the player's first three numbers are placed face up, and the remaining six numbers are face down and are unknown to the player (see Figs. 31-33).

The machine's nine numbers are always randomly generated and then a joker, which is equivalent to the number 10 randomly replaces any of the numbers in, for example, position one through six. The joker (number ten) is greater than any of the player's numbers and will automatically win when it is played. The machine's numbers are face down, and the player has no knowledge of them, nor of which number has been replaced by the Joker/10, nor where the Joker/10 is in the sequence. Because of the Joker/10, the machine has the advantage to a sufficient extent, and no starting three numbers of the player can overcome this advantage. In other words, the machine is always a favorite to win, thereby being able to provide the player exciting odds.

#### The Odds

All probabilities of winning have been calculated for each of the 504 starting three numbers that a player can possess ( $9 \times 8 \times 7 = 504$ ). In addition, all probabilities of winning in a specified number of moves have been calculated for each of the 504 starting three numbers. A detailed discussion of

the odds is provided below. The calculations are based on a reasonable assumption that the underlying placement of tokens, either Xs or Os, will be in accordance with a "best chance to win" strategy. That is, when faced with the problem of blocking your opponent or going for the win - the strategy of choice is to block, if blocking does not require placing an additional token to win. In addition, the strategy of choice is not to block, if blocking requires placing an additional token to win. A more detailed discussion on move strategies is provided below.

**Example 1:**

X	O	
	O	

For this game, the correct strategy is not to block, because after the block, X will still need two more moves to win. However, if X does not block, but instead goes for the win, X will need only one more move to win.

**Example 2:**

X		
	X	O
		O

Here the strategy of blocking does not cost a move, and therefore, is preferred. Using this basic strategy and including the first move as always being to the center and the second move as always being to the upper left hand corner then the possible outcomes reduce to:

### Winning Patterns Losing Patterns

XXX OOO

XXXX XOOO

10 XXXX OXOO

OOXXXXXOOO

OXOXXXOXOO

XOOXXOXXOO

XXOXXOXXOO

15 OOXOXXXOXOO

OXXOXXXOXXOO

XOOXOXOXXOXO

XOXOXXOXOXOO

XXOOXXOXXOO

20 XXOXOXOXXOXO

OOXXOXXXOXXOO

OXOXOXXXOXOXOO

XOXOXOXOXOXOXO

XXOOXOXOXXOXOXO

25



The player is always offered the appropriate odds. That is, the odds for winning can change greatly depending on the player's starting three numbers - for example, 789 as a start for the player is almost even money to beat the machine's random sequence, while 123 as a start for the player is a 5 to 1 underdog. Thus, for example, if the player starts with 789 then, for example, 1 to 1 odds will be assigned to the game. However, if the player starts with 123, the player will be assigned 5 to 1 odds.

In addition, the odds for winning in a specified number of moves can change greatly depending on the player's starting three card numbers. The player can also bet on winning in 3 moves, 4 moves, 5 moves, 6 moves, 7 moves, 8 moves or in 9 moves. Each bet is independent and carries its own odds. For example, the initial sequence of 1 4 9 as a start for the player will:

Win 28.60% of the time and the player will get 2 to 1 odds

Win in 3  
0% of the time (anytime a 1 appears in the starting three numbers, wins-in-3 are out)

Win in 4  
4.45% of the time and the player will get 18.75 to 1 odds

Win in 5  
8.40% of the time and the player will get 9.50 to 1 odds

Win in 6  
8.15% of the time and the player will get 9.75 to  
1 odds

5 Win in 7  
4.60% of the time and the player will get 18 to 1  
odds

10 Win in 8  
2.05% of the time and the player will get 41.75 to  
1 odds

15 Win in 9+ties  
1.55% of the time and the player will get 55.50 to  
1 odds

20 The appropriate odds are displayed and the player can  
make any number of bets (each one for any amount). In  
fact, the player can make multiple bets. For example,  
using the odds for starting with 149, the player can  
bet:

\$5 TO WIN (at 2 to 1) and/or

\$2 TO WIN IN 5 (at 9.50 to 1) and/or

\$2 TO WIN IN 9 (at 55.50 to 1).

25 This bet also wins if the game ends in a tie or is  
unresolved after nine moves.

The following point payoffs are possible for  
individual bets:

- 30 a) If the player wins the game in any number of  
moves, then the player wins twice the bet, in this  
case \$10.
- b) If the player wins the game in 5 moves, the player  
wins 9.50 times the bet, in this case \$19.

- c) If the player wins the game in 9 moves, the player wins 55.50 times the bet, in this case \$111.

If the player made all three bets and the player

5 wins in nine moves, then the player would:

win \$10 on his WIN bet, and

lose \$2 on his WIN IN 5 bet, and

win \$111 on his WIN IN 9 bet.

10 **Results:**

(\$5bet WIN) \$10 + (\$2bet WIN IN 9) \$111 - (\$2bet  
WIN IN 5) \$2 = \$126

**Bonuses**

15 There are two possible ways to win more money or points after a successful bet.

- 1) Big Win N' Spin - the house lays, for example, 4.25 to 1 odds, on the payoff from the current game, that three Xs when "spun" randomly on the slot game board will fall in a row or along a diagonal. The Big Win N' Spin is optional and only appears on the screen after any wager has been won. The total payoff from the current game must be risked. That is, if 2 units are wagered on WIN IN 5 at 9.50 to 1 odds and this bet is won (totalling 21 units), then when the Big Win N' Spin button appears the player will be asked to
- 20
- 25

risk the 21 unit payoff and will be given 4.25 to 1 odds. The true odds on winning the Big Win N' Spin are, for example, 4.40 to 1, therefore, the house's advantage is 2.8% on the bonus wager.

(The house's advantage is calculated as follows: there are 27 ways to arrange the 3 Xs, of which 5 create a winning PIC-TAC-TOE position and 22 do not, that is, the true odds are 22 to 5 against).

- 2) Little Win N' Spin - the house gives even money (1 to 1 odds), on the payoff from the current game, that four Xs (with a fifth X appearing under special circumstances - to balance the probabilities) when "spun" randomly on the slot game board will fall in a row or along a diagonal. Thus, there is, for example, a marker for each column of the tic-tac-toe board, plus an additional marker in one of the columns to increase the probability of attaining a sequence of three markers in a row, diagonal (or perhaps even column).

The Little Win N' Spin is optional and only appears on the screen after a wager has been won. The total payoff from the current game must be risked. That is, if 2 units are wagered on WIN IN 5 at 9.50 to 1 odds and this bet is won, then when the Little Win N' Spin button appears, the player

will be asked to risk the 21 units payoff and will be given 1 to 1 odds. The true odds on winning the Little Win N' Spin are 1.057 to 1, therefore the house's advantage is 2.8% on the bonus wager.

5 (The house's advantage is calculated as follows: there are 3672 ways to arrange the X's of which 1785 create a winning PIC-TAC-TOE position and 1887 do not.)

Both types of Spin N' Win may be replayed after  
10 spinning and winning the Big or Little Spin N' Win. That is, if the player wins at Big Spin N' Win - the player can risk all again at either Big or Little Spin N' Win until the player either loses or cashes in by starting a new game. For example, a player wins a one  
15 unit bet at 7 to 1 totalling 8 units. The player can Spin N' Win the 8 unit payoff at Big Spin N' Win or Little Spin N' Win. If the player wins at the Spin N' Win, the player can then risk the increased payoff (either 42 units (Big Spin N' Win) or 16 units (Little  
20 Spin N' Win)) again. If the player spins and wins again, then the player can again risk the ever increasing payoff.

#### SLOT-TAC-TOE Example

25 FIG. 31 shows the selection of the starting 3 digits. The player must choose one number in each of the three columns of nine numbers.

FIG. 32 illustrates the display screen after selecting the starting 3 digits: 9 8 7. The odds associated with 9 8 7 are displayed and the computer awaits the player touching the circles under the odds. Each touch will increase the units bet under those odds by one. That is, for the player to bet two units on winning in 5 moves, the player touches the circle under the 'L' in PLAYER and under the rectangle with 29+ legend twice, thereby betting two units at 29+ to 1 odds on winning in exactly five moves.

The + sign next to the numbered odds, (e.g., 29+) means that the player will receive more than the figure to its left as odds. That is, 29+ to 1 may actually pay [29.01 to 1] up to [29.99 to 1] odds. The bar under positions 3-4-5-6 (e.g., in FIG. 34 under "7 2 L A") allows the player to bet one unit and cover winning in 3, 4, 5 or 6 moves exactly. Of course, the associated odds with this bet are significantly lower than any of the individual bets it covers (e.g., in Fig. 32 the odds are 1+). The same discussion holds for the bar under positions 6-7-8-9 (e.g., in FIG. 34 under "A Y E R").

FIG. 33 illustrates the SLOT-TAC-TOE game in progress, and actually after four moves. The Player has shown the sequence 9-8-7-2 and the Casino has shown 7-4-8-J. The moves are analyzed as follows:

Move 1:

Player 9 vs Casino 7 = Player wins and places an X in the center of the board.

Move 2:

5 Player 8 vs Casino 4 = Player wins and places an X in the upper left corner.

Move 3:

Player 7 vs Casino 8 = Casino wins and places an O on the lower right hand corner, to block.

10 Move 4:

Player 2 vs Casino J = Casino always wins when it plays the Joker (J) and it places an O in the upper right hand corner.

15 In FIG. 33, the player has bet a total of 9 units. 4 units are bet to just win (at 1+ to 1 odds), 3 units are bet to win in exactly 3 moves (at 2+ to 1 odds), and 2 units are bet to win exactly in 4 moves (at 10+ to 1 odds). Play will continue until either the player or the casino has 3 in a row, column or diagonal. If  
20 plays ends, that is, 9 moves have been made, and there is no winner, then the game is declared a tie.

### Move Strategy

25 FIG. 34 illustrates the move strategy for slot-tac toe. All the moves use the following table to define move positions:

1	2	3
4	5	6
7	8	9

5

10 In FIG. 34, columns 1 through 9 show the current position. The MOVE column gives the position of the next move. The WIN column defines the winning position. In this Table the letter G = traditional X token, and the letter E = traditional O token. FIG. 34 does not illustrate the final move position where a

15 winner has been determined.

FIGs. 35 and 36 illustrate all possible positions and their corresponding choice of moves to be made - depending on whether the player or the computer wins the next move. The next moves are determined based upon the unique set of rules described above for the

20 SLOT-TAC-TOE game. These figures also show all winning and losing final positions. In FIGs. 35 and 36, the winning positions are arrived at by a sequence of Xs and Os which have a one-to-one correspondence with the

25 SLOT-TAC-TOE board positions.

FIGs. 37-39 are flow charts of the computer implemented process for SLOT-TAC-TOE with Big Win N' Spin and Little Win N' Spin features. To obtain winnings/losings from the SLOT-TAC-TOE game, the

30 computer system provides the player the function of



cashing out remaining credits in step D2. This routine is activated when the "Cash out" button is touched. Coins are dispensed in step D4, and credits are reset to zero in step D6. Next, the computer system resets the first three numbers for the player to the default setting (7,8,9) in step D8.

The computer system then determines the appropriate odds, as discussed above, for the default setting in step D10. In step D12, all bets are removed and reset, and in step D14 the main SLOT-TAC-TOE display screen is refreshed. In step D16, the computer system then prompts the player to determine whether the player wants to pick other numbers, instead of the default system, and/or whether the player is to make any wager.

If the player decides to activate the Pick Your Numbers button for placing a wager and selecting new numbers or maintaining the default numbers for playing the SLOT-TAC-TOE game, the Pick Your Numbers routine is begun in step E2. In step E4, the "Pick Numbers" display is provided to the player, and the player is prompted to highlight numbers chosen in step E6. The computer system then determines if the selected number was previously highlighted in another column, and if so, the highlight from previously highlighted column is removed in step E8. When each of the three columns have a highlighted number, i.e., the player has

selected the first three numbers for playing SLOT-TAC-TOE, the computer system determines the appropriate odds for the chosen numbers in step E10. In step E12, all bets are removed and reset, and in step E14 the main SLOT-TAC-TOE display screen is refreshed. The player is then prompted for the one or more wagers, discussed above in step E16. For example, for each betting position touched, Position Bet counter is incremented for that position by 1, and the Increment Total Bet counter is incremented by 1. The computer system then waits for the play button to be activated in step E18, or until a predetermined time period expires to either declare the player invalid or automatically begin play.

FIG. 39 is a flow chart of the computer process when the play button is activated by the user in the SLOT-TAC-TOE game. In FIG. 39, the play button is activated in step F2, and the credits indicated in the Total Bet counter are then decremented in step F4. The computer system then generates a random 6 digit sequence for the player using the 6 digits not already chosen for the Player to complete the nine digit sequence in step F6. Substantially simultaneously with step F4, the computer system sets the Column Position to 1 in step F8. The computer system also generates a random 9 digit sequence for the casino, using the numbers 1 through 9 only once in step F10.

After completion of steps F2-F10, the computer system generates a random number from 1 to 6 which represents a position in the casino's row of numbers, and replaces the Casino's number in that position with the number 10 in step F12. The computer system then displays the numbers for the casino and the player in each column position for each round of play in step F14, and matches or compares the numbers to each other for each column in step F16. There are three possible results to this comparison. First, the player may have the higher number, second the casino may have the higher number, or third there is a tie. Based on the comparison of the player to casino number for each round, the following processes occur.

If the player's selected number is ranked higher than the casino's number, then the player wins the match in step F18. In step F20, the player number in the winning column position "n" is highlighted, and a player's token is moved into the PIC-TAC-TOE board area and alights on a specific square. The strategy table determines which square at any moment in time is alighted or filled with a player token in the PIC-TAC-TOE board. The player's token is then moved onto the PIC-TAC-TOE board using the strategy table in step F22. The computer system then determines whether the player has won the game in step F24.

If the computer system determines that the player has won the SLOT-TAC-TOE game in step F26, then the credits are displayed in the "Win" box, and a prompt is displayed to the player to determine whether the player wants to play the bonus game Spin 'N Win 1 to 1 or Spin 'N Win 4 to 1, described in detail below.

If the player decides not to play the bonus round, or after the player has completed the bonus round, the player is prompted to play the next game using the same betting pattern and the same 3-digit starting number. The player is then prompted for the cash out, and pick new number and new wager routines described above. Buttons that are active at this point of play include the play, pick numbers, position bets, and cash out buttons.

If the player decides to play the bonus round, then the following processes may be implemented, responsive to player selection. For the bonus round, the player has the selection of, for example, either the Spin 'N Win 1 to 1 game, and/or the Spin 'N Win 1 to 4 game. For the Spin 'N Win 1 to 1 game, the PIC-TAC-TOE board clears, and four (4) Player tokens randomly move around the board, finally alighting in a pattern. If this resulting pattern contains 3 tokens in a row, column or diagonal, the player doubles the credits just won, and the computer system displays an indicator in the player "Win" box. The player is then

given the option of re-playing the bonus round as described above.

If any other pattern results where there is not at least three (3) tokens in a row, column or diagonal, the player loses the bonus round. The players credits that were entered for the bonus round are then removed. The player is then prompted to determine whether the player would like to play the SLOT-TAC-TOE game again.

For the Spin 'N Win 4 to 1 game, the PIC-TAC-TOE board clears, and three (3) Player tokens randomly move around the board, finally alighting in a pattern. If this resulting pattern contains 3 tokens in a row, column or diagonal, the player quintuples the credits just won, and the computer system displays an indicator in the player "Win" box. The player is then given the option of re-playing the bonus round as described above.

If any other pattern results where there is not at least three (3) tokens in a row, column or diagonal, the player loses the bonus round for Spin 'N Win 4 to 1. The player's credits that were entered for the bonus round are then removed. The player is then prompted to determine whether the player would like to play the SLOT-TAC-TOE game again.

If the player's selected number is ranked lower than the casino's number, then the casino wins the match in step F32. In step F34, the player number in

the winning column position "n" is highlighted, and the casino's token is moved into the PIC-TAC-TOE board area and alights on a specific square in step F36. The strategy table determines which square at any moment in time is alighted or filled with the casino token in the PIC-TAC-TOE board. The casino's token is then moved onto the PIC-TAC-TOE board using the strategy table in step F36. The computer system then determines whether the casino has won the game in step F38.

If the computer system determines that the casino has won the SLOT-TAC-TOE game in step F40, then the player's credits are deducted in step F42 and the game is over. Buttons that are active at this point of play include the play, pick numbers, position bets, and cash out buttons. The Player may elect to:

(1)

Play the next game using the same betting pattern and the same 3-digit number;

(2)

Pick a new 3-digit number and then enter a betting pattern;

(3)

Change the betting pattern for the current 3-digit number; or

(4) Cash out.

If the player's selected number is ranked the same as the casino's number, then a tie is declared in step F48, and control is diverted to making another comparison in step F50, and back to step F16.

5

#### SLOT-TAC-TOE Tournament

The SLOT-TAC-TOE slot-machine game offers the casino player a new type of slot tournament, i.e., one in which the player has some input into the eventual outcome. The casino will be encouraged to run these tournaments regularly since the machines will be in full play with maximum coinage being dropped in (maximum coinage is generally a requirement of the tournament players). In addition, the casino may participate in the cut of the tournament jackpot that will go to the tournament operators. In addition, the players will benefit from having a quick, exciting tournament with a guaranteed winner and large payoffs.

10  
15

Appendix A lists the house win frequencies and house odds of winning. In Appendix A, the results of simulating 10,000 games of PIC-TAC-TOE for each of the 504 starting 3-digit numbers is presented. The results are the number of wins, losses and ties and the number of wins in 3 or 4 or 5 or 6 or 7 or 8 or 9 moves. The results determine the right hand column which represents the odds the house will give to the player and maintain a fixed edge of 12.5%.

20

25

Column HeaderDefinition

	KEY	Starting 3 digits
5	WINS	How many wins in 10,000 simulations
	LOSS	How many losses in 10,000 simulations
10	TIES	How many ties in 10,000 simulations
15	3WIN	How many wins in exactly 3 moves out of 10,000 simulations
	4WIN	How many wins in exactly 4 moves out of 10,000 simulations
20	5WIN	How many wins in exactly 5 moves out of 10,000 simulations
	6WIN	How many wins in exactly 6 moves out of 10,000 simulations
25	7WIN	How many wins in exactly 7 moves out of 10,000 simulations
30	8WIN	How many wins in exactly 8 moves out of 10,000 simulations
	9WIN	How many wins in exactly 9 moves out of 10,000 simulations
35	0WIN	Odds on winning (figures are X to 100, for example 113 to 100)
	OW3	Odds on winning in exactly 3 moves
40	OW4	Odds on winning in exactly 4 moves
	OW5	Odds on winning in exactly 5 moves
45	OW6	Odds on winning in exactly 6 moves
	OW7	Odds on winning in exactly 7 moves
	OW8	Odds on winning in eschewal 8 moves
50	OW9	Odds on winning in exactly 9 moves or by ties



OW3456

Odds on winning in exactly 3 OR 4 OR 5 OR 6 moves

OW6789

5 Odds on winning in exactly 6 OR 7 OR 8 OR 9 moves  
or by ties

10 Appendix B contains the program to calculate the  
frequencies of winning or losing at SLOT-TAC-TOE given  
the starting three numbers of the players sequence.  
All frequencies of winning in exactly 3, 4, 5, 6, 7, 8  
or 9 moves are also calculated. The program uses  
random simulations. That is, the remaining six digits  
of the players sequence are randomly chosen and the  
15 entire nine position sequence for the house or computer  
is also randomly chosen. After choosing the computer's  
sequence - one of the first six positions of the  
sequence is replaced with the Joker (J), thereby giving  
the casino the decided advantage.

20 The program in Appendix C uses the results of the  
SLOT-TAC-TOE program to calculate the casino odds that  
will be given for all bets. The casino's advantage can  
be programmed in this program by simply varying the  
value of the variable HOUSE.CUT currently which is  
25 currently set at 12.5%. In addition, odds on bar bets  
[3 or 4 or 5 or 6] or [6 or 7 or 8 or 9] are  
calculated. Appendix D contains the program that  
verifies the odds in the Spin N' Win outcomes by  
completing the finite problem.

30

**SLOT-TAC-TOE Tournament Description:**

The SLOT-TAC-TOE tournament allows for any number of participants, playing on any denominational slot machine and wagering any amount in the tournament jackpot (essentially this is comparable to the Pick 'Em Poker Tournament concept, see U.S. application Serial number 08/ , incorporated herein by reference).

To start the event, each player pushes the Tournament Button on the player's slot machine screen. The machine makes sure that the player has sufficient credits to play. That is, if the tournament is scheduled for 30 games with each game requiring a wager of 5 units, then the player must start with 150 credits, PLUS THE CREDITS TO WAGER IN THE JACKPOT. For example, a jackpot wager of 40 credits would mean that the player must start with 190 credits.

For example, assume the player has wagered 40 credits (at \$0.25 per credit, this is worth \$10).

Assume for this example that 100 players in the tournament have contributed as follows:

50 players	40 credits	\$10
25 players	100 credits	\$25
15 players	200 credits	\$50
10 players	400 credits	\$100

Therefore, the four separate tournament jackpots are:

#	Plys.	Bet/Player	Total	BetGroup	Member
	100	40 credits/\$10	4,000 credits/\$1,000	all players	
	50	60 credits/\$15	3,000 credits/\$750	100 credits/\$25 & up	
5	25	100 credits/\$25	2,500 credits/\$750	200 credits/\$50 & up	
	10	200 credits/\$50	2,000 credits/500	400 credits	

The assumption that all credits are worth 25 cents is not necessary, but is used here for clarity.

10

#### The Rules of Contest:

1. There are three (3) rounds of ten (10) games each (the parameters of 3 and 10 can be changed to suit the casino's needs). To start each round, a tournament player chooses a 3-digit starting number sequence. This number must be used for the ten games within the round. The player then places five (5) unit bets wherever the player wishes. The distribution of the five unit bets cannot be changed during a round.

15

2. The player then plays the ten games with the chosen starting number and the chosen betting distribution.

20

3. The units won, not their value (this allows for machines of various denominations to participate in the same tournament) during each round, are accumulated for each player by the tournament software and compared for ranking purposes. Each player's score is graphically represented on the player's screen and the player's overall standing in each Jackpot Group is displayed.

25

4. The next round starts with the player having the option of choosing a new starting number and a new betting distribution.

5. Winners in each Jackpot Group are rewarded with their "Tournament Credits Won" and the tournament is over.

All players, whether or not they won a tournament jackpot prize, optionally keep the units they won during the tournament.

10 In effect, the tournament is a totally separate entity from the normal slot machine play, except that the normal ability to change your starting number and betting distribution whenever the player wishes have been restricted by the tournament rules.

15 Various alternatives are within the scope of the present invention. For example, instead of using numbered cards, other methods may be used to perform a similar function, such as colors wherein different colors have different values/priorities. Similarly, the cards may include pictures that signify their value. For example, it is commonly known that an ace card is of a higher value than a king card, and that a king card is of a higher value than a queen card, and the like. The present invention encompasses such a priority scheme and other  
20 priority schemes used to signify card value, worth or  
25 priority.

Similarly, within the scope of the present invention is the use of symbols, each of which can beat one symbol and lose to another symbol. The symbols are randomly generated for the player and the casino, with  
5 selections coming from a biased set of symbols. The bet is then distributed even among all seven positions and play begins. In this configuration, no symbols are shown prior to play, although other alternative are possible, such as the first three symbols being face up for the  
10 first three rounds of play. In addition, a bonus is provided when both the player and the casino match each others symbols for four consecutive rounds of play.

A particularly interesting example of the use of symbols is the rock-paper-scissors game. Thus, in this  
15 setting, the player and the computer are provided randomly generated sequences of rock, paper and scissor symbols. As everyone knows, a rock beats a scissor, loses to paper and ties another rock. A scissor beats a paper, loses to a rock and ties another scissor. A paper beats a rock,  
20 loses to a scissor and ties another paper. Thus, for each round of play, the player and the casino match the randomly selected symbols to determine the winner of the round that may place the marker on the PIC-TAC-TOE board. Alternatively, the player may also be allowed to select  
25 for each round their own symbol, since the game is inherently fair when the symbols are randomly selected or selected by the player.

The many features and advantages of the invention are apparent from the detailed specification, and thus, it is intended by the appended claims to cover all such features and advantages of the invention which fall within the true spirit and scope of the invention. Further, since numerous modifications and variations will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation illustrated and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

CLAIMS

1. An electronic system for simultaneously playing a tournament game among a plurality of players playing against each other, and an individual game where the player plays against the house, comprising:

5 (a) a central computer, said central computer configured to perform the following functions:

(i) enabling all players to select a monetary level of wagering;

(ii) assigning players to the tournament game;

10 (iii) initiating and transmitting all events relating to the playing of the tournament to the player;

(iv) tabulating, storing and transmitting data received from the plurality of players in response to the tournament game;

15 (vi) evaluating each individual game within the tournament game to determine a winner for the tournament game; and

(vii) distributing a tournament award; and

20 (b) a plurality of player workstations, one player workstation for each player, each player workstation configured to be electronically connected to said central computer, each player workstation configured to perform the following functions:

- 25 (i) electronically receiving and displaying  
tournament data from said central computer and from  
each player;
- (ii) transmitting player inputs for the tournament  
to said central computer;
- 30 (iii) transmitting wagering data from the player  
to said central computer;
- (iv) processing the player inputs for the  
individual game and distributing an individual  
award responsive thereto.

35 2. An interactive electronic gambling casino  
system comprising:

(a) the electronic system configured to play a  
tournament among a plurality of players according to claim  
1;

40 (b) means configured to display and initiate other  
casino functions and casino services from a menu that the  
electronic system provides the casino player; and

(c) means configured to display and initiate other  
casino wagering games from a menu the electronic system  
45 provides the casino player.

3. An interactive electronic gambling casino  
system according to claim 2, wherein one of the casino  
services is ordering drinks, and wherein information  
provided to the casino player in response to selection of



5 the ordering drinks service is a menu display of available drinks.

4. An interactive electronic gambling casino system according to claim 3, further including means configured to input and transmit the casino player's drink request to an appropriate drink dispenser.

5 5. An interactive electronic gambling casino system according to claim 2, wherein one of the casino services is making reservations, and wherein information provided to the casino player in response to selection of the making reservations function is a menu display of possible reservations available.

5 6. An interactive electronic gambling casino system according to claim 5, further including means configured to input, transmit, confirm and credit of the casino player's reservation request to the appropriate night club reservation system.

5 7. An interactive electronic gambling casino system according to claim 5, further including means configured to input, transmit, confirm and credit the casino player's reservation request to the appropriate restaurant reservation system.

8. An interactive electronic gambling casino system according to claim 5, further including means for input, transmittal, confirmation and crediting of casino player's reservation request to the appropriate hotel reservation system.

9. An interactive electronic gambling casino system according to claim 2, wherein one of the casino services is making travel/transportation arrangements, and wherein information provided to the casino player in response to selection of the making travel/transportation arrangements function is a menu display of possible travel/transportation arrangements available.

10. An interactive electronic gambling casino system according to claim 9, further including means for input, transmittal, confirmation and crediting of the casino player's travel/transportation arrangements with an appropriate travel agency system.

11. An interactive electronic gambling casino system according to claim 9, further including means for input, transmittal, confirmation and crediting of the casino player's travel/transportation arrangement with an appropriate bus transportation system.

12. An interactive electronic gambling casino system according to claim 9, further including means for input, transmittal and confirmation of the casino player's travel/transportation arrangements with an appropriate valet parking system.

13. An interactive electronic gambling casino system according to claim 2, wherein one of the casino services is to make credit/debit money transfers, and wherein information provided to the casino player in response to selection of the make money transfer function is a menu display of possible money transfers available.

14. An interactive electronic gambling casino system according to claim 13, further including means for input, transmittal, confirmation and crediting of money transfers with an appropriate credit/debit card service.

15. An interactive electronic gambling casino system according to claim 2, wherein one of the casino services is to take bets on sporting or racing events, and wherein the information provided to the casino player in response to selection of the betting on sports and racing function is a menu display of the sports and racing bets available or sports and racing results.

16. An interactive electronic gambling casino system according to claim 15, further including means for input, transmittal, confirmation and crediting of sports and racing bets.

17. An interactive electronic gambling casino system according to claim 15, further including means for transmittal, display and crediting of the results of the casino player's sports and racing bets.

18. An interactive electronic gambling casino system according to claim 15, further including means for transmittal and display of video images of key moments of the sports and racing events which the casino player placed the bet on.

19. An electronic system according to claim 1, wherein each of the plurality of players optionally input different wagering data for playing the individual and tournament games.

20. An electronic system according to claim 19, wherein simultaneous tournaments are being played with players overlapping from one tournament to another responsive to the different wagering data.

21. An electronic system according to claim 19,  
wherein groups of simultaneous tournaments are formed  
responsive to the different wagering data, and wherein  
each of the groups is independently scored with respect to  
5 only those players within each of the groups.

22. An electronic system according to claim 21,  
wherein separate tournament rewards are providable for  
each of the simultaneous tournaments.

23. An electronic system according to claim 1,  
wherein the electronic system provides no restriction to  
the number of the players playing the tournament game.

24. An electronic system according to claim 1,  
wherein the tournament game includes players submitting  
different wagering data of different denominations.

25. An electronic system according to claim 1,  
wherein the tournament game includes players submitting  
different entry fees forming independently and  
substantially simultaneously scored player groupings.

26. An electronic system according to claim 1,  
wherein said central controller comprises a master game  
server computer and a gamer server computer operatively  
connected thereto, and wherein:

5 each of said workstations are configured to query  
said master game sever computer to participate in  
the tournament game,  
said master game server computer is configured to  
assign said workstation to said game server  
10 computer for a session start function,  
said master game server computer configured to  
terminate further participation and to initiate a  
begin game function between all participating  
workstations and said game server computer, and  
15 upon completion of the tournament game, said game  
server computer is configured to disconnect all the  
players participating in the tournament game.

27. An electronic system for playing a tournament  
game among players playing against each other, comprising:  
at least two game station computers configured to control  
the tournament game for at least one of the players in the  
5 tournament; at least one game server computer configured  
to control said at least two game station computers, said  
at least one game server configured to score the  
tournament game controlled by said at least two game  
station computers, and said at least one game server  
10 computer configured to control start, play, end and payout  
of the tournament game; and at least one master game  
server computer configured to determine the players in the  
tournament game, to determine idle game station computers

of said at least two game station computers, and to group  
15 said at least two game station computers for scoring by  
said at least one game server computer for the tournament  
game.

28. An electronic system according to claim 27,  
further comprising at least one supervisory station  
computer configured to monitor the tournament game for  
conditions including an unresponding player or an  
5 unusually large tournament game in progress, and  
configured to receive messages from the electronic system  
in the event of a malfunction or user help request.

29. A game device, comprising: a game board  
divided into a plurality of zones arranged in a plurality  
of columns and a plurality of rows and forming a plurality  
of diagonals; first and second sets of playing pieces  
5 respectively used by first and second players, at least  
three of the first and second sets of the playing pieces  
being placed into at least three of the plurality of zones  
of said game board until at least three of the first  
playing pieces or at least three of the second playing  
10 pieces have been placed in one of the plurality of rows,  
one of the plurality of columns or one of the plurality of  
diagonals; first and second sets of cards, respectively  
distributed to the first and second players, each said  
first and second cards having respective first and second

15 rankings associated therewith providing respective first  
and second priorities, wherein to determine whether the  
first or second playing piece is to be placed in one of  
the plurality of zones of said game board, each of the  
first and second players uncovers respective first and  
20 second cards from the first and second sets of cards  
respectively, and the first or second playing piece is  
placed in any of the plurality of the zones of said game  
board that do not already include one of the game pieces  
responsive to a comparison between the first and second  
25 cards and the ranking associated therewith and also  
responsive to game strategy.

30. A game device according to claim 29, wherein  
the comparison between the first and second cards and the  
ranking associated therewith used to determine which of  
the first or second playing pieces is to be placed next on  
the game board comprises the one of the first and second  
5 cards assigned a first priority higher than a second  
priority of another of the first and second cards.

31. A game device according to claim 30, wherein  
each of the first and second sets of cards are numbered,  
and wherein the comparison includes comparing a first  
number having the first priority on the first card with a  
5 second number having the second priority on the second  
card.



32. A game device according to claim 31,

wherein each of the first and second cards are of a rectangular shape having a first side of shorter length than a second side, and wherein numbers are printed on the first and second cards in parallel with the second side of the first and second cards for reading by the first and second players.

33. A game device according to claim 28, further comprising first and second card holders having slots for placement of the first and second sets of cards

respectively, each said first and second card holders is tapered, wherein each of the first and second cards are of a rectangular shape having a first side of shorter length than a second side, wherein numbers are printed on the first and second cards in parallel with the second side of the first and second cards for reading by the first and second players, and wherein the tapering of the first and second card holders facilitates reading of the numbers on the second side of each of the first and second cards.

34. A game device according to claim 29, further comprising a game variant selection device for selecting between different variants of playing said game device, wherein said game variant selection device prescribes a subset of cards in each of the first and second sets of cards that are to be arranged in respective first and

second orders by the first and second players respectively that are to be played at a time, and wherein when the subset of cards have been played by the first and second  
10 players, the first and second players arrange a second subset of cards using the cards remaining in the first and second sets of cards to be played next.

35. A game device according to claim 34, wherein the game variant selection device selects between variant all, variant 3, and variant 1, wherein for the variant all each player places all the cards in a first order that  
5 must be maintained for the entire duration of the game until completion, wherein for the variant 3 each player places three cards in a second order that must be maintained for the duration of play of the three cards, and after the three cards have been played, each player  
10 selects another three cards in a third order that must be maintained for the duration of play of the another three cards, wherein for the variant 1 each player plays each of the cards in the first and second sets of cards one at a time.

36. A game device according to claim 34, wherein the game variant selection device selects a variant 1+1, wherein for the variant 1+1 each player places two cards in a first order for play leaving the remaining cards  
5 covered, and each player exposes one of the two cards for

play, and after the one of the two cards has been played, each player selects a third card from the remaining cards and exposes another of the two cards for play.

37. A game device according to claim 29, further comprising a doubling device for doubling a game value assigned for winning a game using the game device, wherein when one of the players doubles the game value using the game device, another of the players has the option of accepting or rejecting the double, wherein when the double is accepted, the game value is doubled, and when the double is rejected, then the game ends with the game value unchanged and the one of the players wins the game.

38. A game device according to claim 37, wherein the doubling device introduces the ability for the players to bluff one another.

39. A game device according to claim 29, wherein the game device is used in a chouette competition.

40. A game device according to claim 29, wherein the game device is used in a tournament, wherein in the tournament, players are paired off to play a game using the game device, a winner of the game advances to a next

5 round of play, and plays another game against another winner of a previous game until only one player remains.

41. A game device according to claim 40, wherein  
in the tournament, the first player is a computer system  
including a random number generator used to select the  
first set of cards for the computer system, the second  
5 player selects a first sub-set of cards from the second  
set of cards, and remaining cards of the second set of  
cards are randomly selected for the second player by the  
computer system, and  
the computer system automatically plays the game against  
10 the second player in accordance with the first and second  
sets of cards and places the first and second sets of  
playing pieces on the game board in accordance with  
predetermined rules.

42. A game device according to claim 41, wherein  
the game board comprises a computer display utilized by  
the computer system.

43. A game device according to claim 41, wherein  
the computer system accumulates points for the second  
player each round of play for comparison to other players  
in the tournament to determine a winning tournament  
player.

44. A game device according to claim 41, wherein the computer system deals itself a joker card with highest ranking in a predetermined position in the first set of cards.

45. A game device according to claim 41, wherein the game device is further used as an individual game, and the second player optionally inputs different wagering data for playing the individual and tournament games, substantially simultaneously.

46. A game device according to claim 41, wherein groups of simultaneous tournaments are formed responsive to the different wagering data, and wherein each of the groups is independently scored with respect to only those players within each of the groups.

47. A game device according to claim 41, wherein the tournament game includes players submitting different wagering data of different denominations.

48. A game device according to claim 41, wherein the tournament game includes players submitting different entry fees forming independently and substantially simultaneously scored player groupings.

49. A game device according to claim 40, wherein in the tournament, losing player are provided re-entry to the tournament at a beginning round level in accordance with predetermined rules.

50. A game device according to claim 29, wherein the first player is a computer system including a random number generator used to select the first set of cards for the computer system, and  
5 the computer system automatically plays the game against the second player in accordance with the first and second sets of cards and places the first and second sets of playing pieces on the game board in accordance with predetermined rules.

51. A game device according to claim 50, wherein the second player selects a first sub-set of cards from the second set of cards, and remaining cards of the second set of cards are randomly selected for the second player  
5 by the computer system.

52. A game device according to claim 51, wherein the first sub-set of cards selected by the second player from the second set of cards comprises three cards from a total of nine cards.

53. A game device according to claim 50, wherein the second set of cards of the second player are randomly selected for the second player by the computer system.

54. A game device according to claim 50, wherein the computer system deals itself a joker card with highest ranking in a predetermined position in the first set of cards.

55. A game device according to claim 54, wherein the first set of cards includes nine cards, and the predetermined position for the joker card is in one of the first six cards of the nine cards.

56. A game device according to claim 50, wherein upon completion of the game, the computer system provides at least three playing pieces in at least each column of the game board for a bonus round, the computer system  
5 rotates the at least three playing pieces in a vertical, slot machine manner, and randomly places the at least three playing pieces in the game board, and the player wins when the at least three playing pieces are displayed on the game board in a single row, or in a diagonal.

57. A game device according to claim 29, wherein the first and second sets of cards include symbols to indicate the ranking therefor, and each of the symbols

5 having a higher ranking over at least one of the symbols  
and a lower ranking over at least another of the symbols.

58. A game device according to claim 57, wherein  
the symbols include a rock symbol, a paper symbol, and a  
scissor symbol, and the rock symbol beats the scissor  
symbol and loses to the paper symbol and ties another rock  
5 symbol, the scissor symbol beats the paper symbol and  
loses to the rock symbol and ties another scissor symbol,  
and the paper symbol beats the rock symbol and loses to  
the scissor symbol and ties another paper symbol.

59. A game device according to claim 57, wherein  
when the first and second players match each others  
symbols for a predetermined number of rounds, a bonus is  
awarded to at least one of the first and second players.

60. A game device according to claim 50, wherein  
the first and second sets of cards include symbols to  
indicate the ranking therefor, and each of the symbols  
having a higher ranking over at least one of the symbols  
5 and a lower ranking over at least another of the symbols.

61. A game device according to claim 60, wherein  
the symbols include a rock symbol, a paper symbol, and a  
scissor symbol, and the rock symbol beats the scissor  
symbol and loses to the paper symbol and ties another rock



5        symbol, the scissor symbol beats the paper symbol and  
loses to the rock symbol and ties another scissor symbol,  
and the paper symbol beats the rock symbol and loses to  
the scissor symbol and ties another paper symbol.

62. A game device according to claim 60, wherein  
when the computer system and second player match each  
others symbols for a predetermined number of rounds, a  
bonus is awarded to the second player.

63. An electronic system for simultaneously  
playing a tournament game among a plurality of players  
playing against each other, comprising:

- 5        (a) a central computer, said central computer  
configured to perform the following functions:
- (i) enabling all players to select a monetary  
level of wagering;
- (ii) assigning players to the tournament game;
- (iii) initiating and transmitting all events  
10       relating to the playing of the tournament to the  
player;
- (iv) tabulating, storing and transmitting data  
received from the plurality of players in response  
to the tournament game, including a request for re-  
15       entry to the tournament for a losing player in a  
beginning round level in accordance with  
predetermined rules;

(v) evaluating the tournament game to determine a winner for the tournament game; and

20 (vi) distributing a tournament award; and

(b) a plurality of player workstations, one player workstation for each player, each player workstation configured to be electronically connected to said central computer, each player workstation configured to perform  
25 the following functions:

(i) electronically receiving and displaying tournament data from said central computer and from each player;

30 (ii) transmitting player inputs for the tournament to said central computer, including the request for re-entry to the tournament for the losing player in the beginning round level in accordance with the predetermined rules implemented by the central controller; and

35 (iii) transmitting wagering data from the player to said central computer.

64. In a game device including a game board divided into a plurality of zones arranged in a plurality of columns and a plurality of rows and forming a plurality of diagonals, first and second sets of playing pieces  
5 respectively used by first and second players being placed into at least three of the plurality of zones of said game board, first and second sets of cards, respectively

distributed to the first and second players, each said first and second cards having respective first and second rankings associated therewith, a method of playing a game, comprising the steps of:

(a) uncovering, by each of the first and second players, respective first and second cards from the first and second sets of cards respectively;

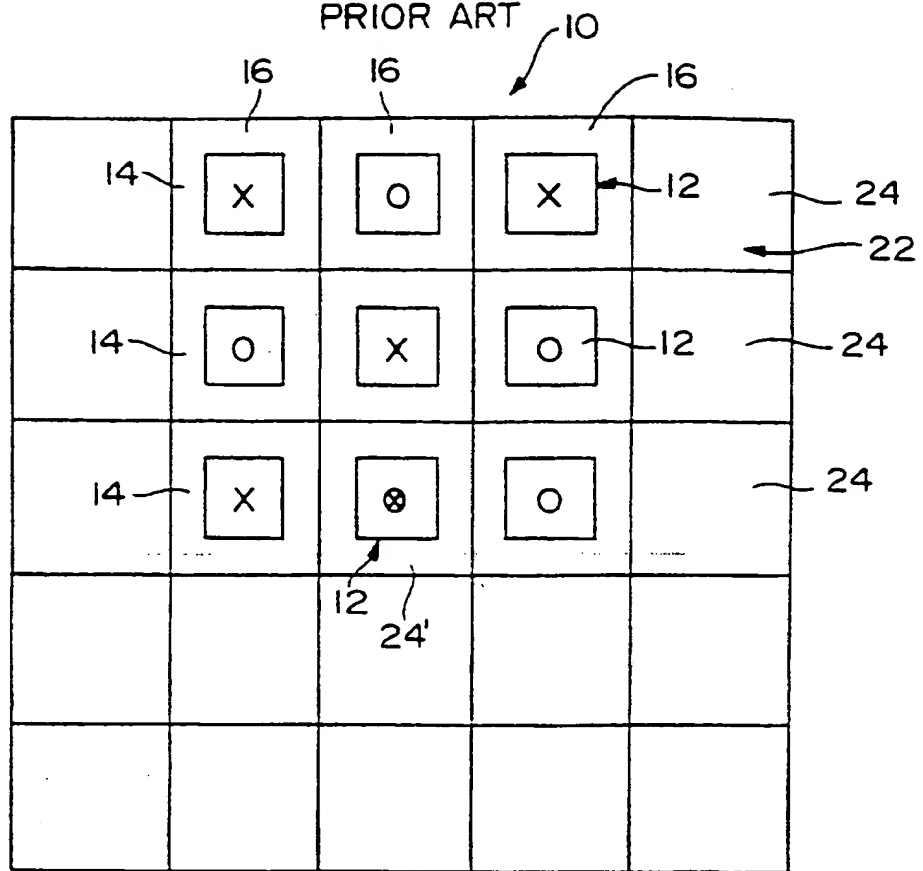
(b) comparing the first and second rankings of the first and second cards and determining whether the first or second playing piece is to be placed in one of the plurality of zones of said game board responsive thereto;

(c) placing one of the first and second playing pieces in any of the plurality of the zones of said game board that do not already include one of the game pieces responsive to said comparing step (b) and game strategy; and

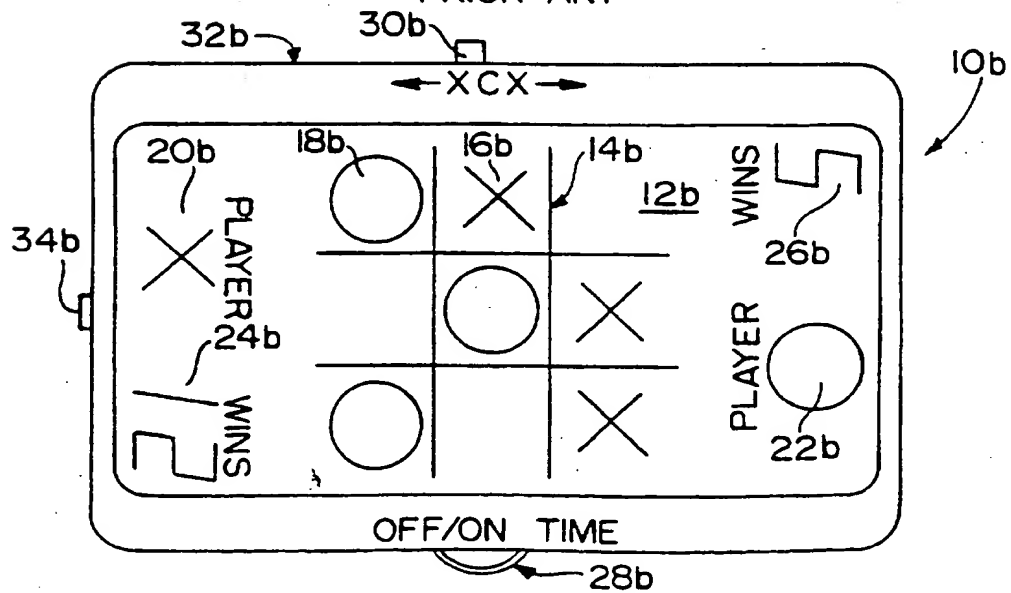
(d) repeating said uncovering step (a), said comparing step (b), and said placing step (c) until at least three of the first playing pieces or at least three of the second playing pieces have been placed in one of the plurality of rows, one of the plurality of columns or one of the plurality of diagonals.

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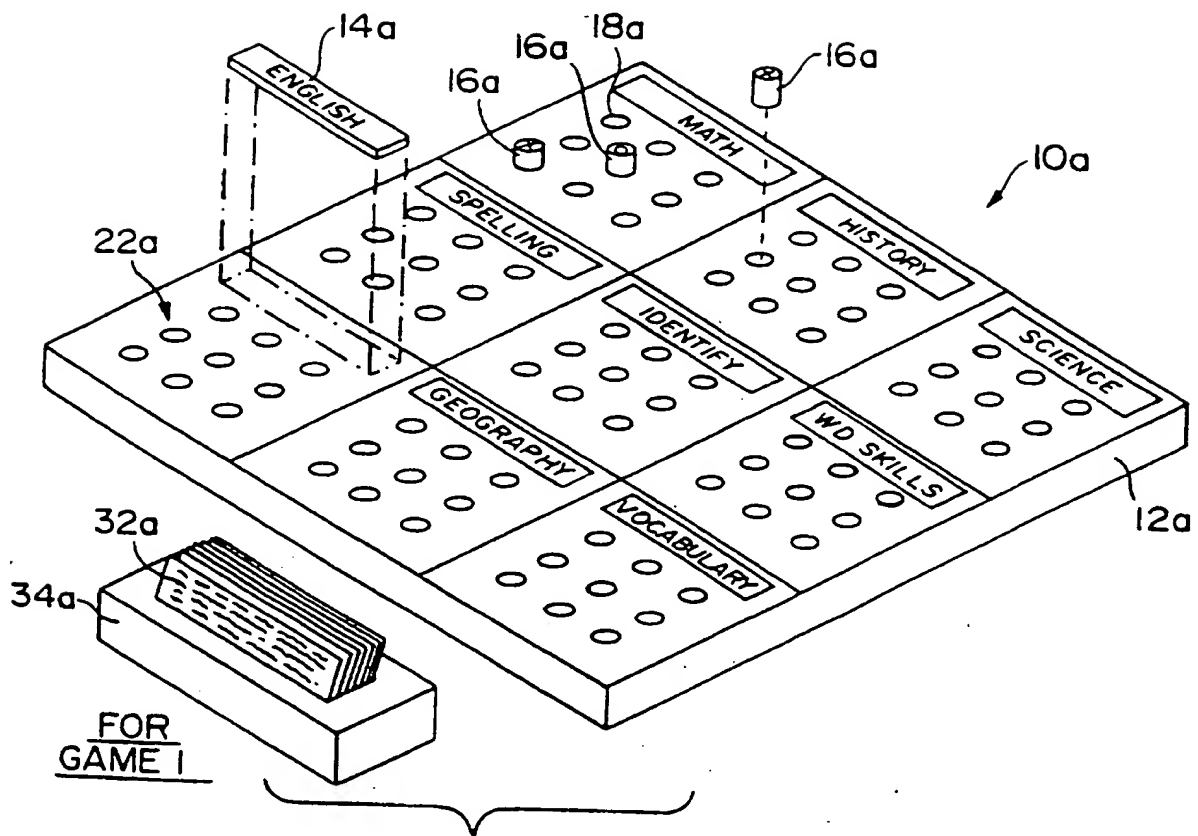
**FIG. 1**  
PRIOR ART



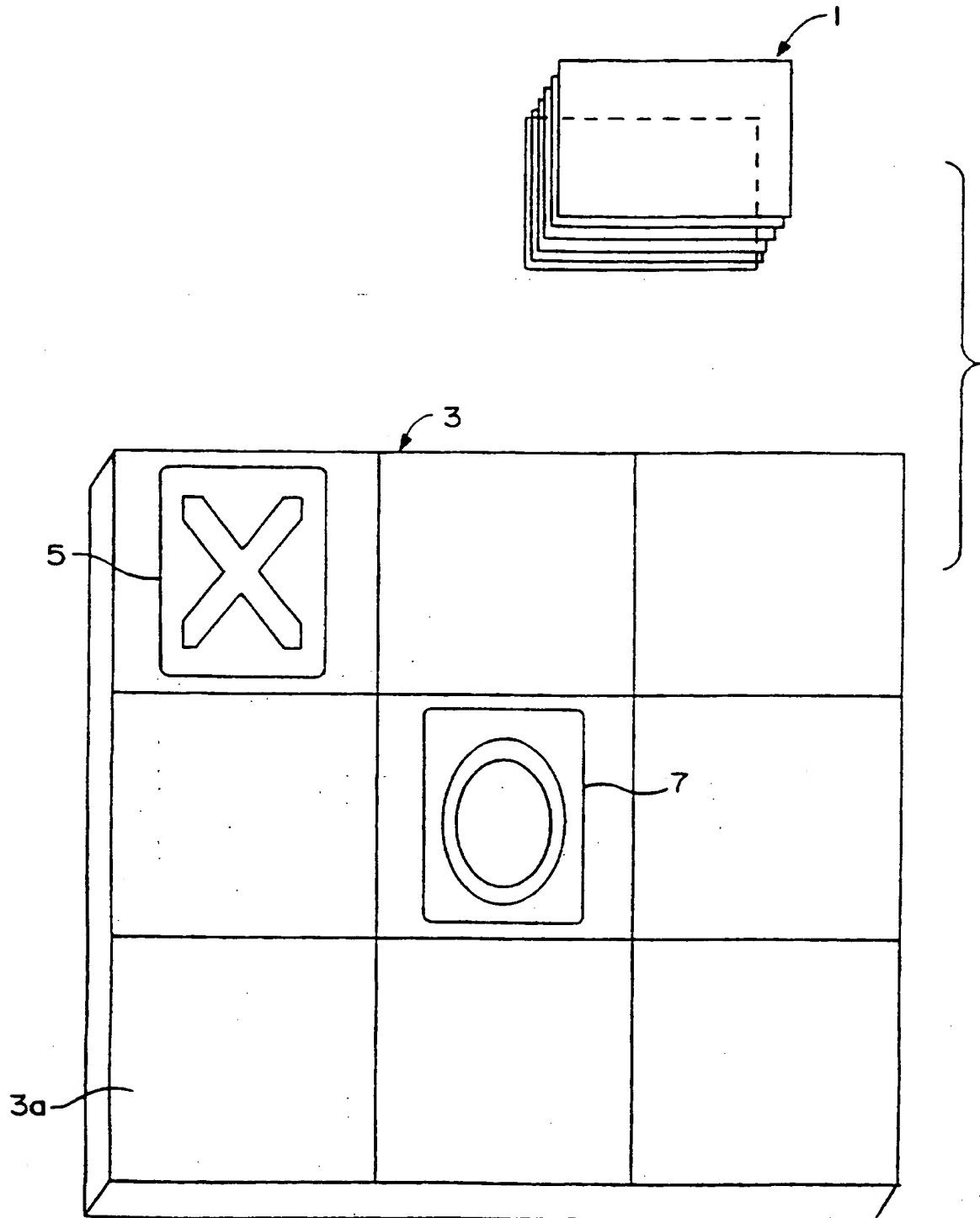
**FIG. 3**  
PRIOR ART



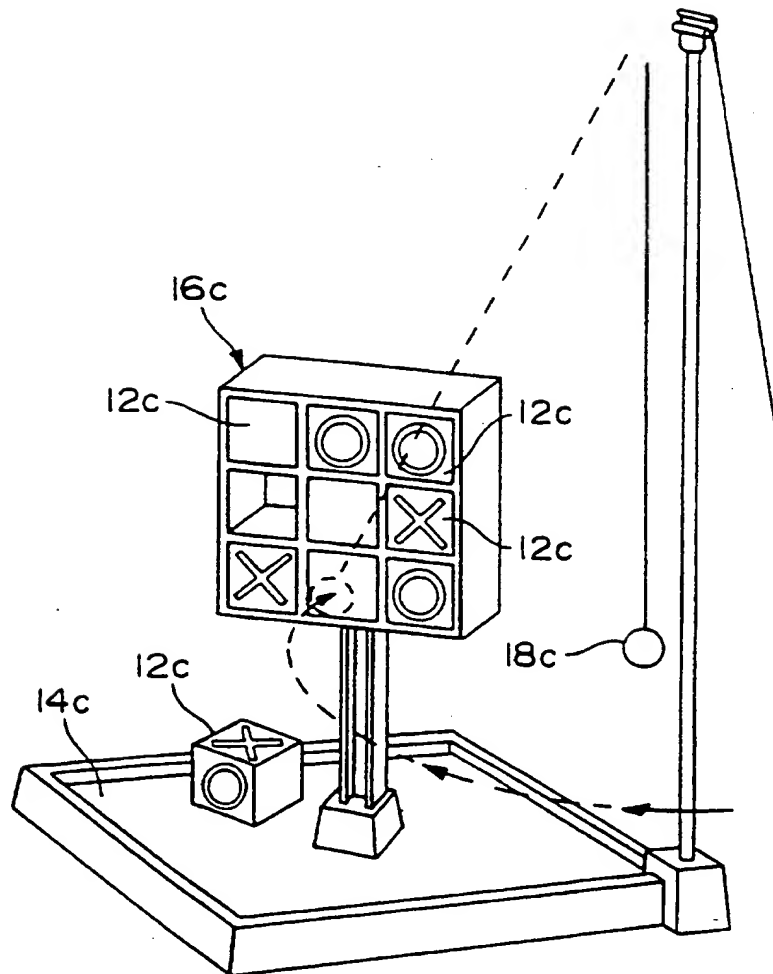
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**FIG. 2**  
PRIOR ART

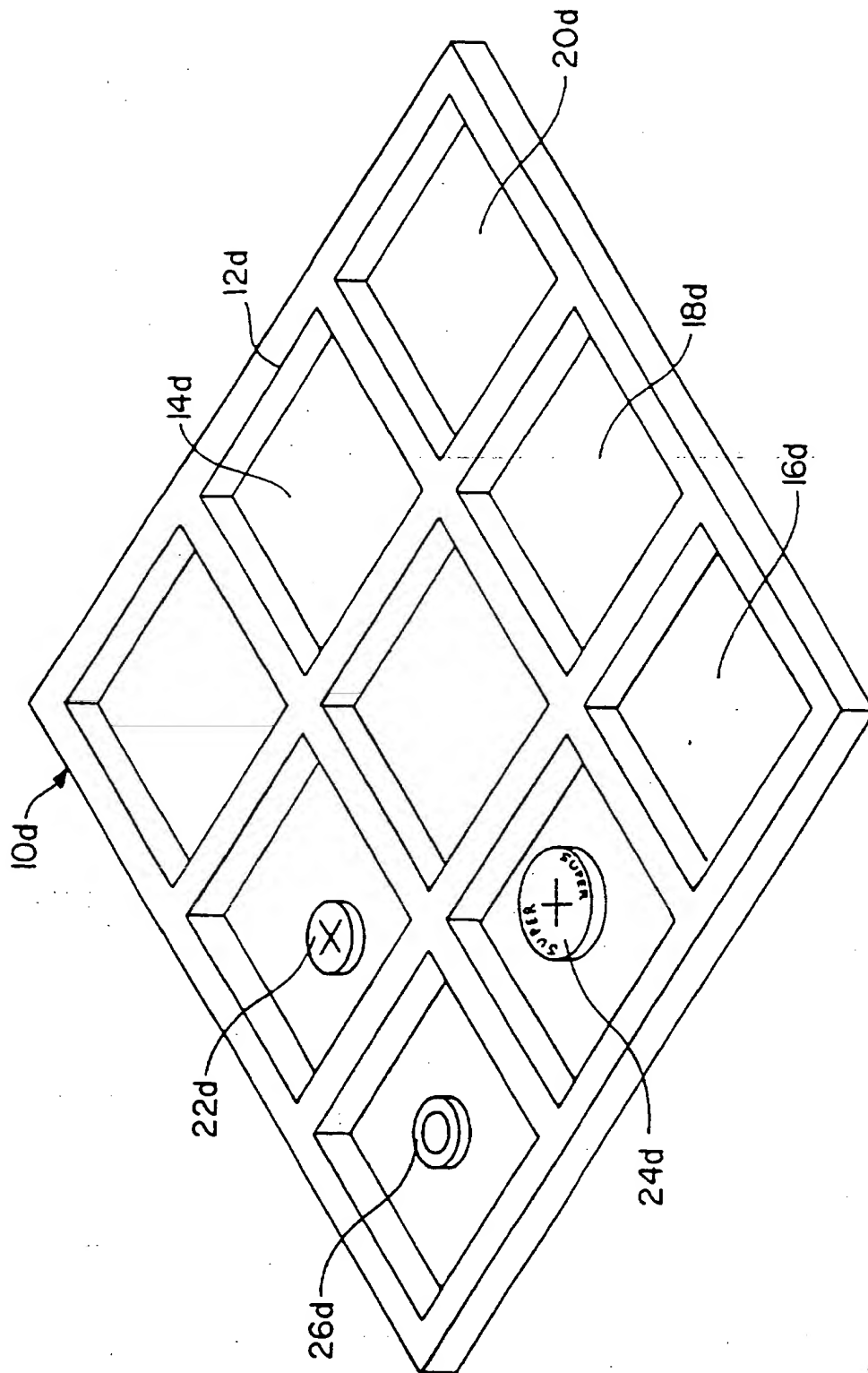
**FIG. 4**  
PRIOR ART



**FIG. 5**  
PRIOR ART



**FIG. 6**  
PRIOR ART





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FIG. 7

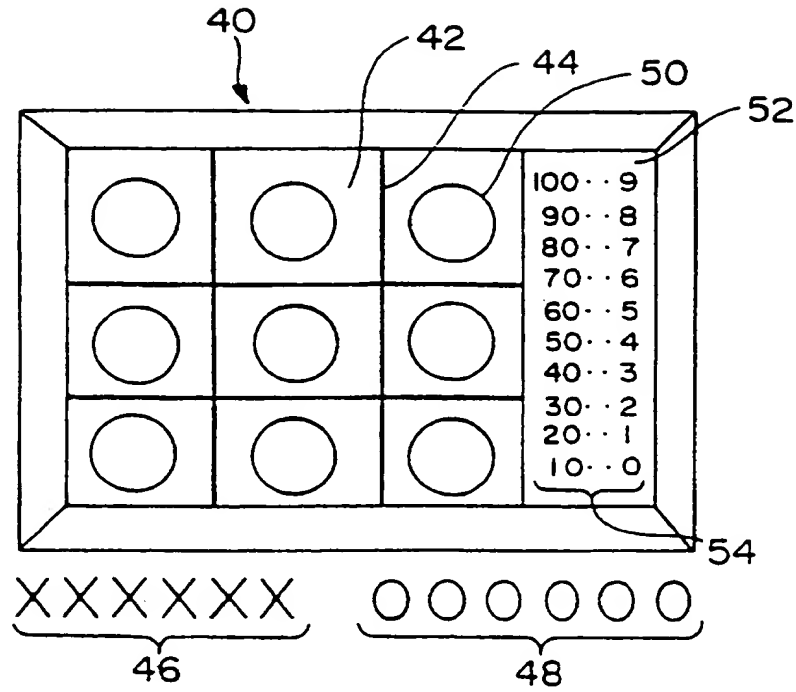


FIG. 8

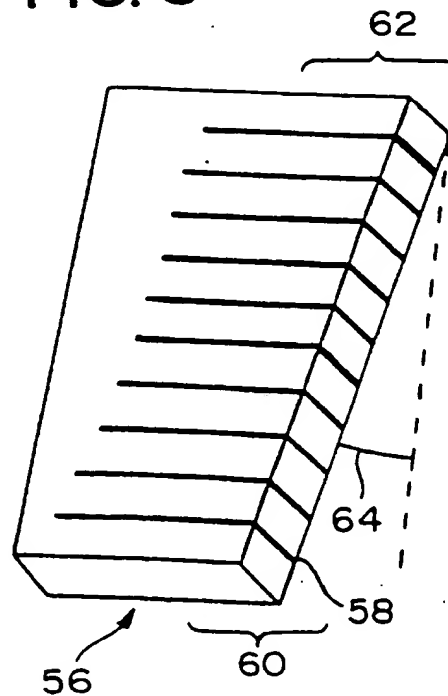


FIG. 9

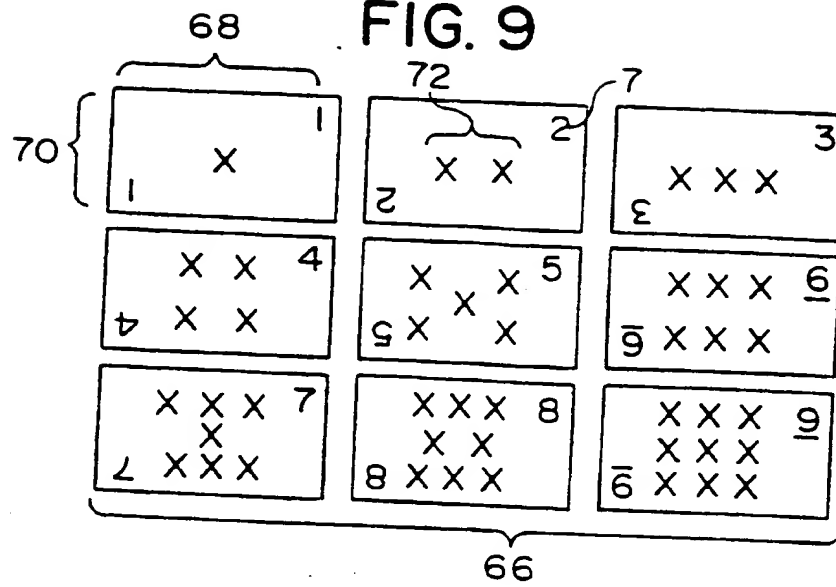


FIG. 10

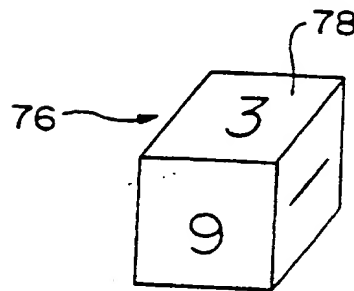
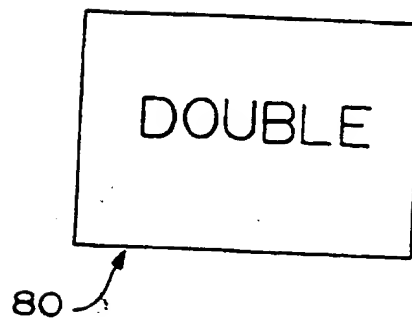


FIG. 11



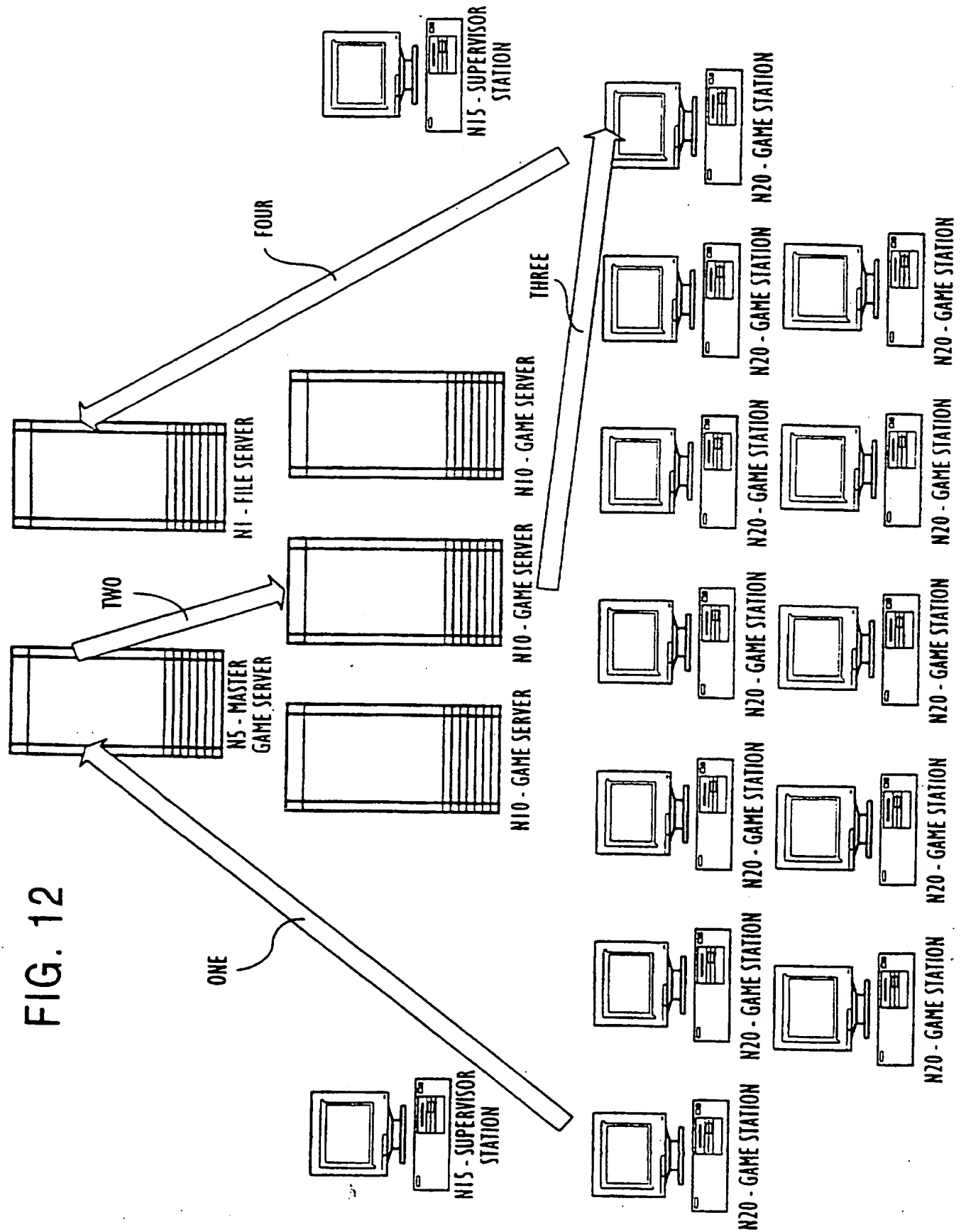
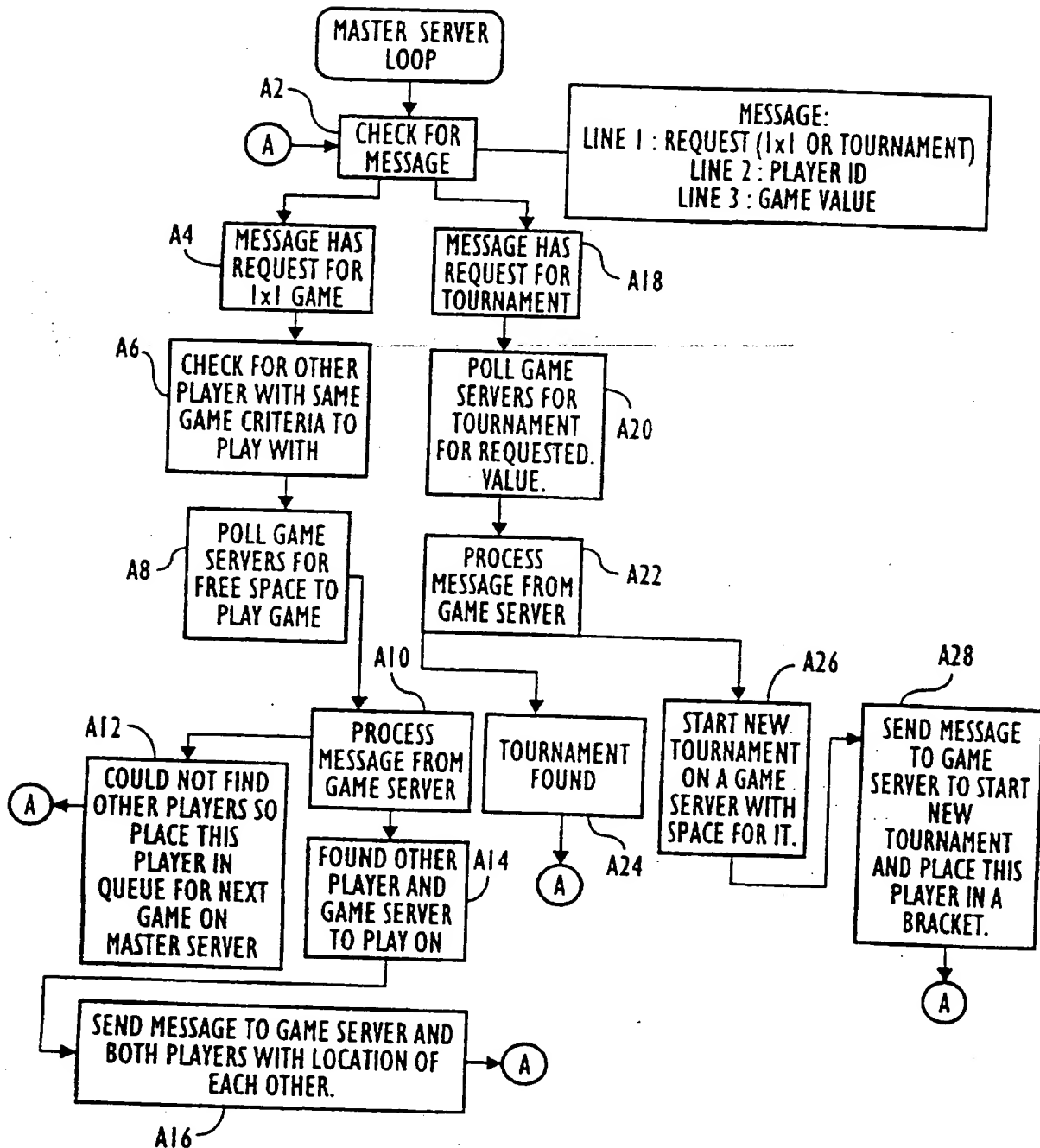


FIG. 12

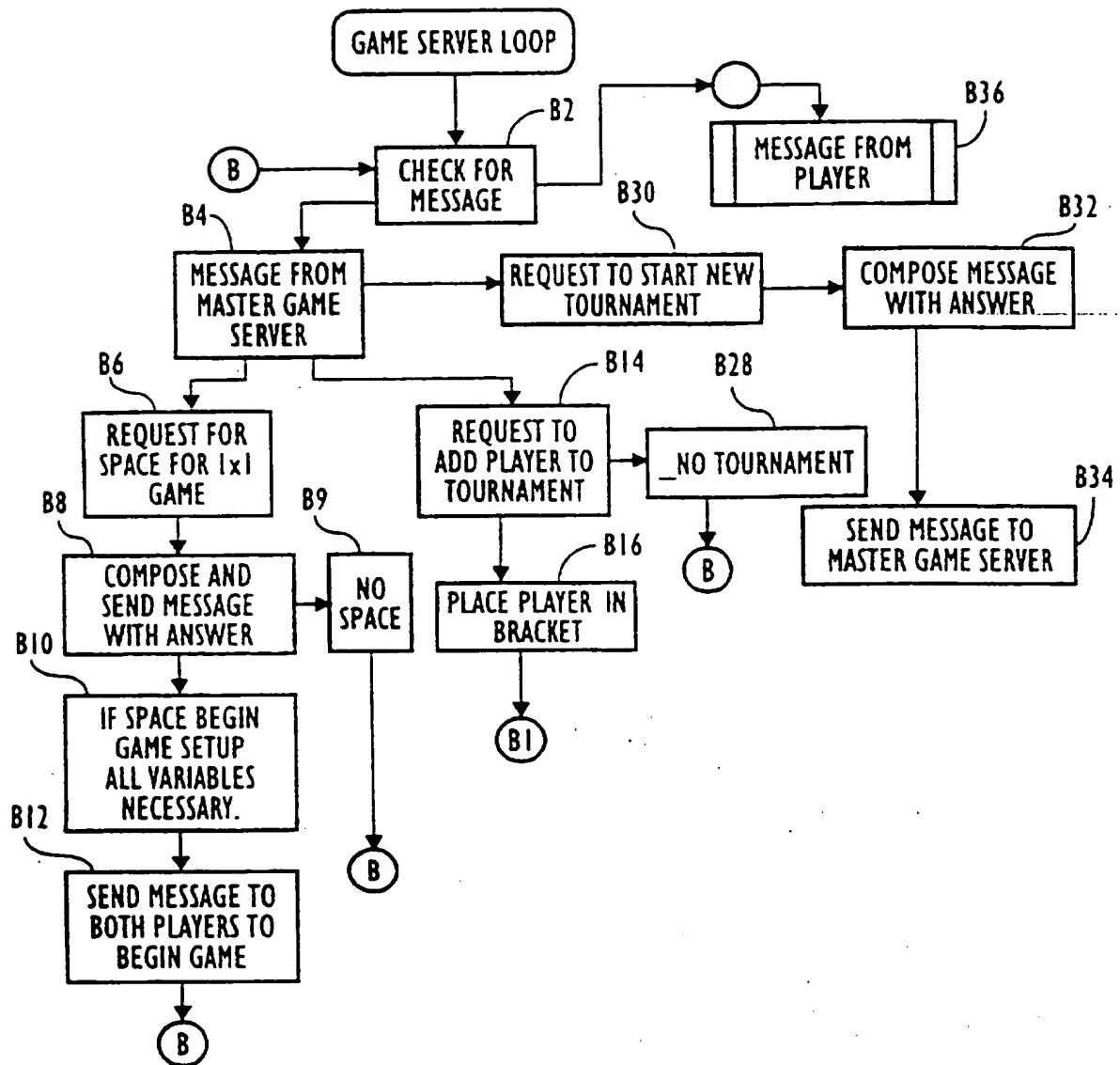
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FIG. 13



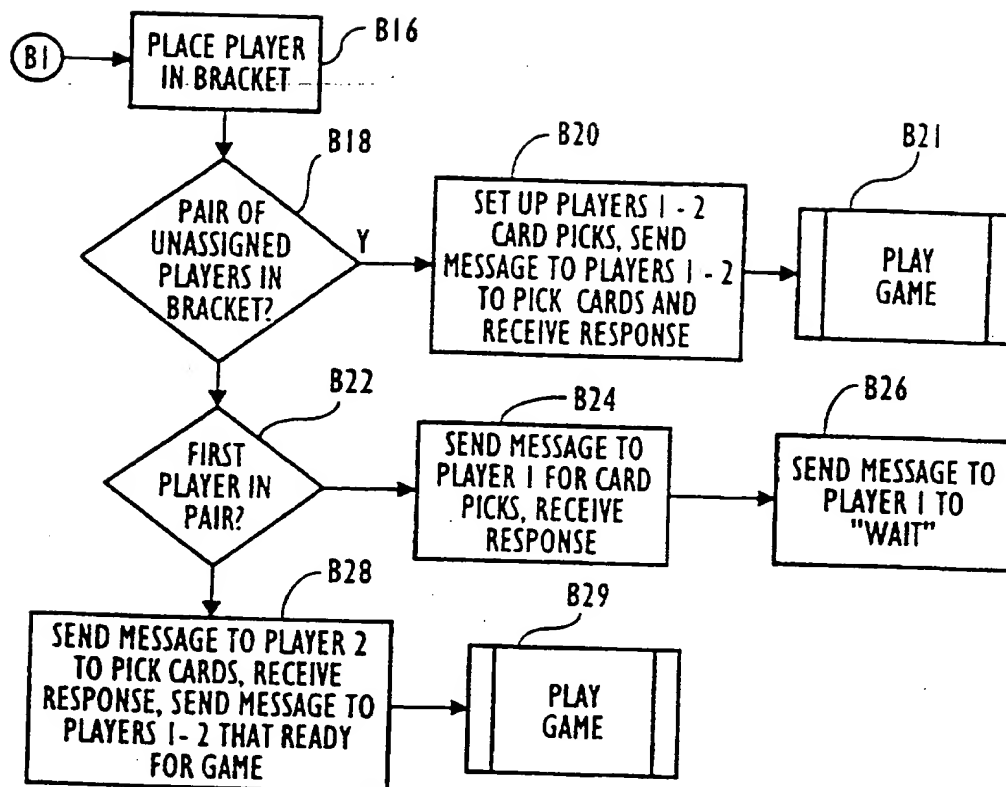
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FIG. 14



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FIG. 15



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FIG. 16

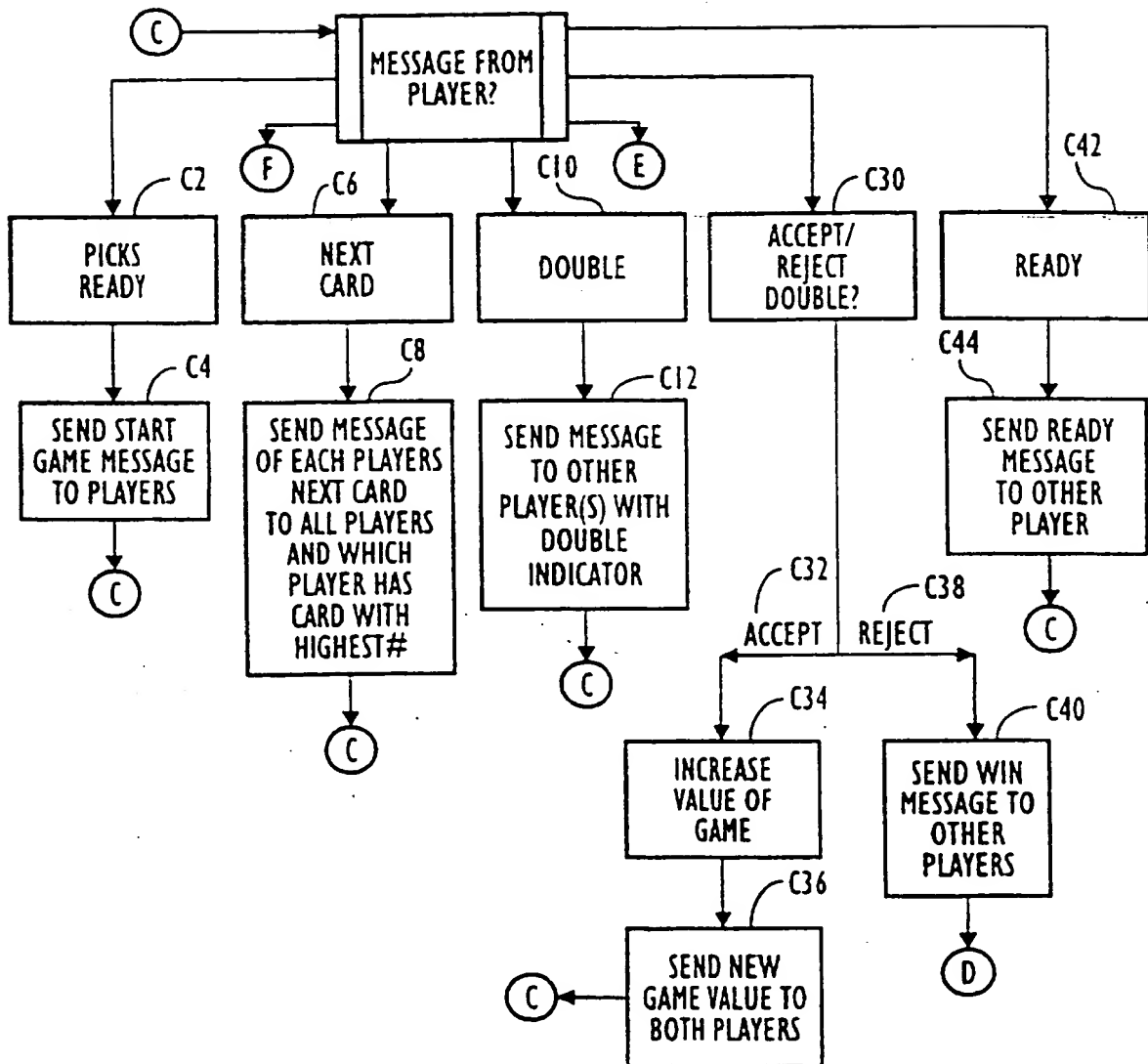


FIG. 17

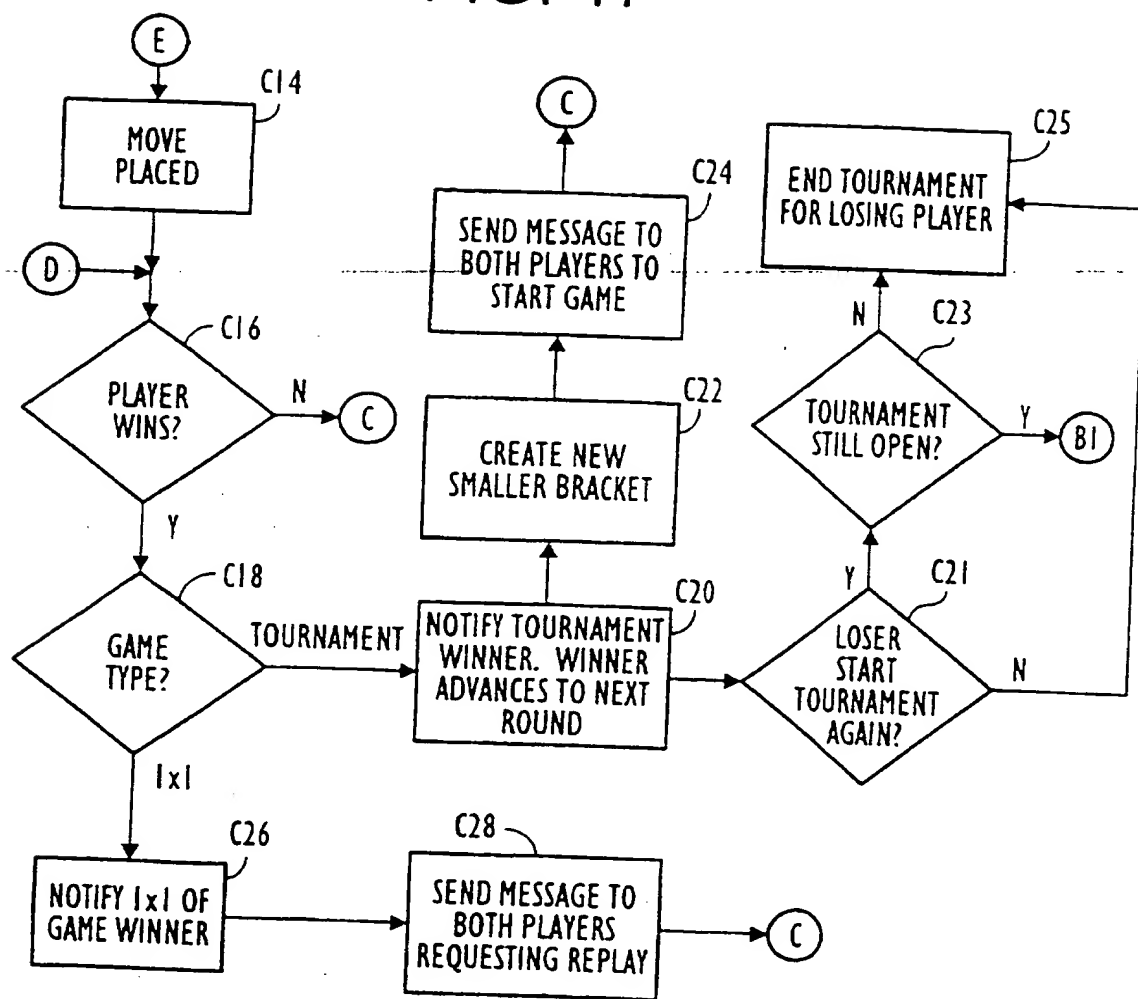






FIG. 18

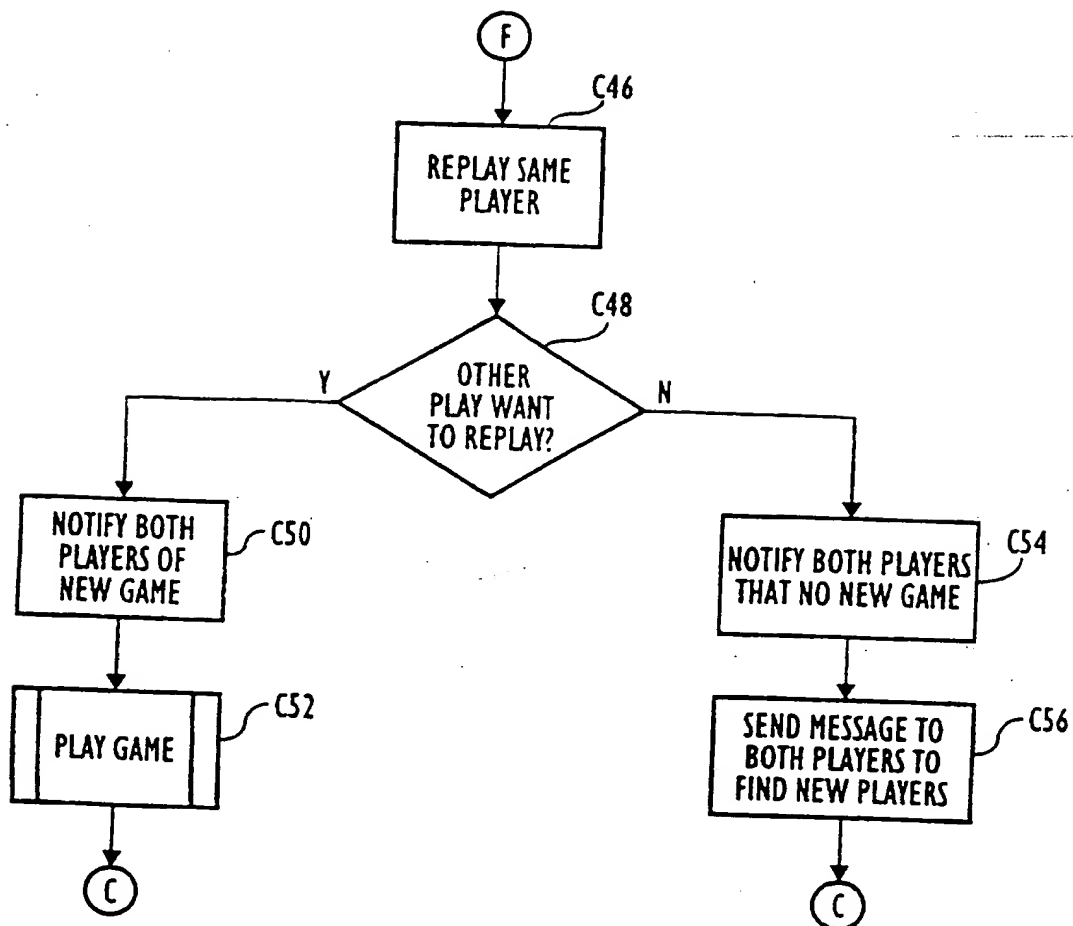


FIG. 19

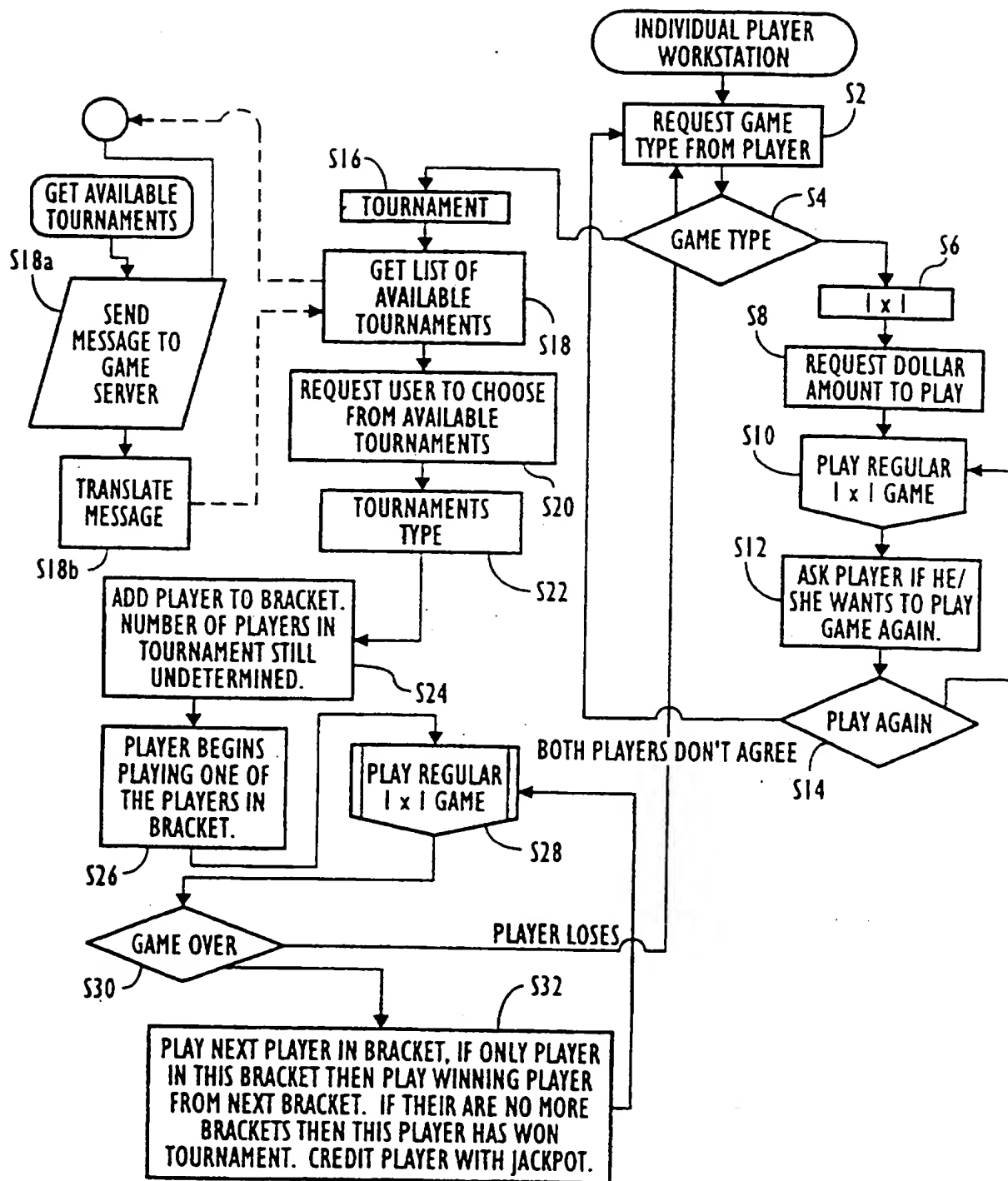


FIG. 20

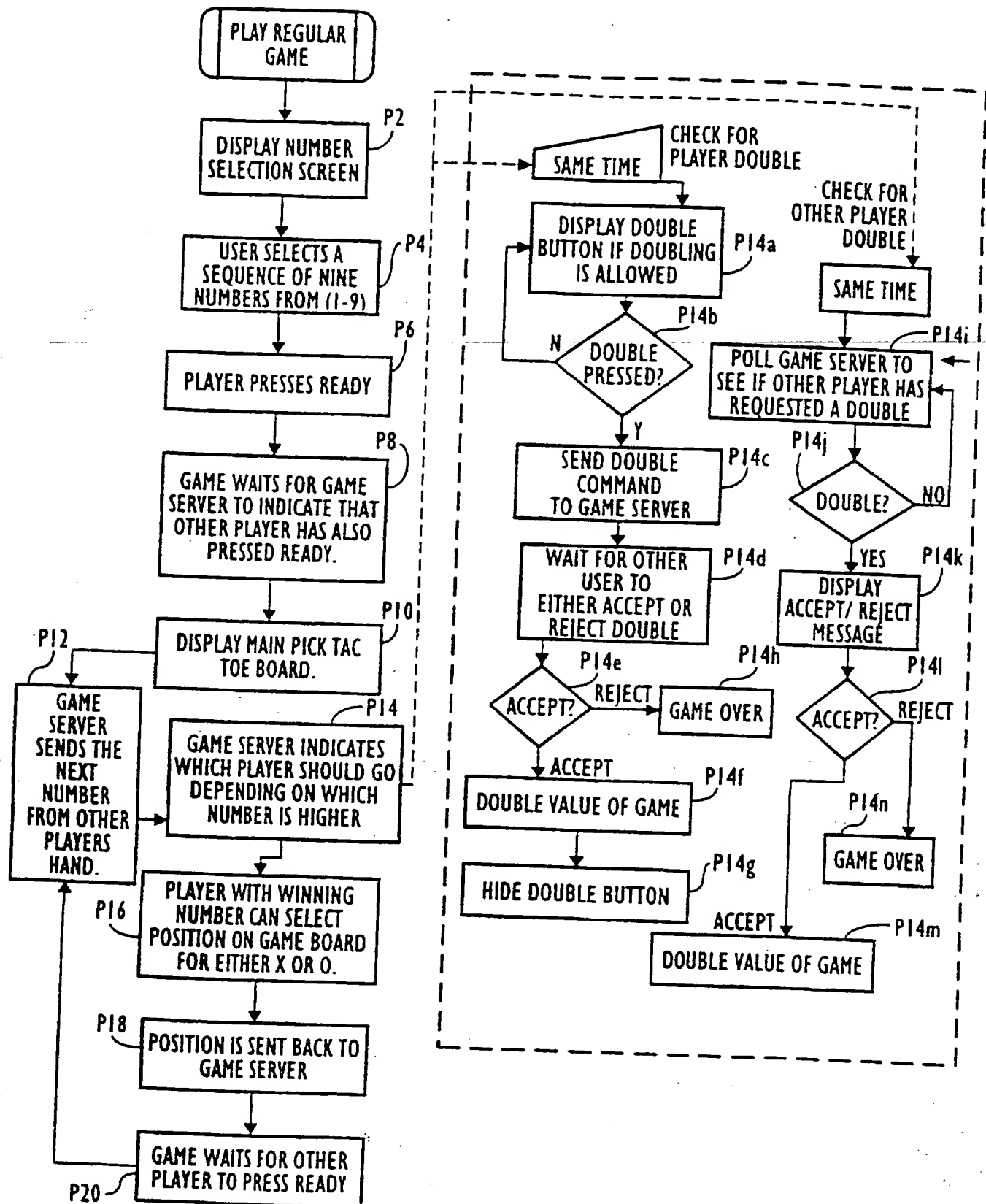


FIG. 21

TOURNAMENT		ONE ON ONE	
\$5 JACKPOT - \$2.50 GAME		\$5 GAME + \$0.50 COMMISSION	
\$10 JACKPOT - \$5 GAME		\$10 GAME + \$1 COMMISSION	
\$15 JACKPOT - \$7.50 GAME		\$25 GAME + \$2.50 COMMISSION	
\$20 JACKPOT - \$10 GAME		\$50 GAME + \$5 COMMISSION	
\$25 JACKPOT - \$10 GAME		\$100 GAME + \$10 COMMISSION	
CASH OUT	START GAME	CREDITS: \$0.00	
		MENU	

FIG. 22

TOURNAMENT		ONE ON ONE	
\$5 JACKPOT - \$2.50 GAME		\$5 GAME + \$0.50 COMMISSION	
\$10 JACKPOT - \$5 GAME		\$10 GAME + \$1 COMMISSION	
\$15 JACKPOT - \$7.50 GAME		\$25 GAME + \$2.50 COMMISSION	
\$20 JACKPOT - \$10 GAME		\$50 SELECTED	
\$25 JACKPOT - \$10 GAME		\$100 GAME + \$10 COMMISSION	
CASH OUT	START GAME	CREDITS: \$0.00	
		MENU	

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FIG. 23

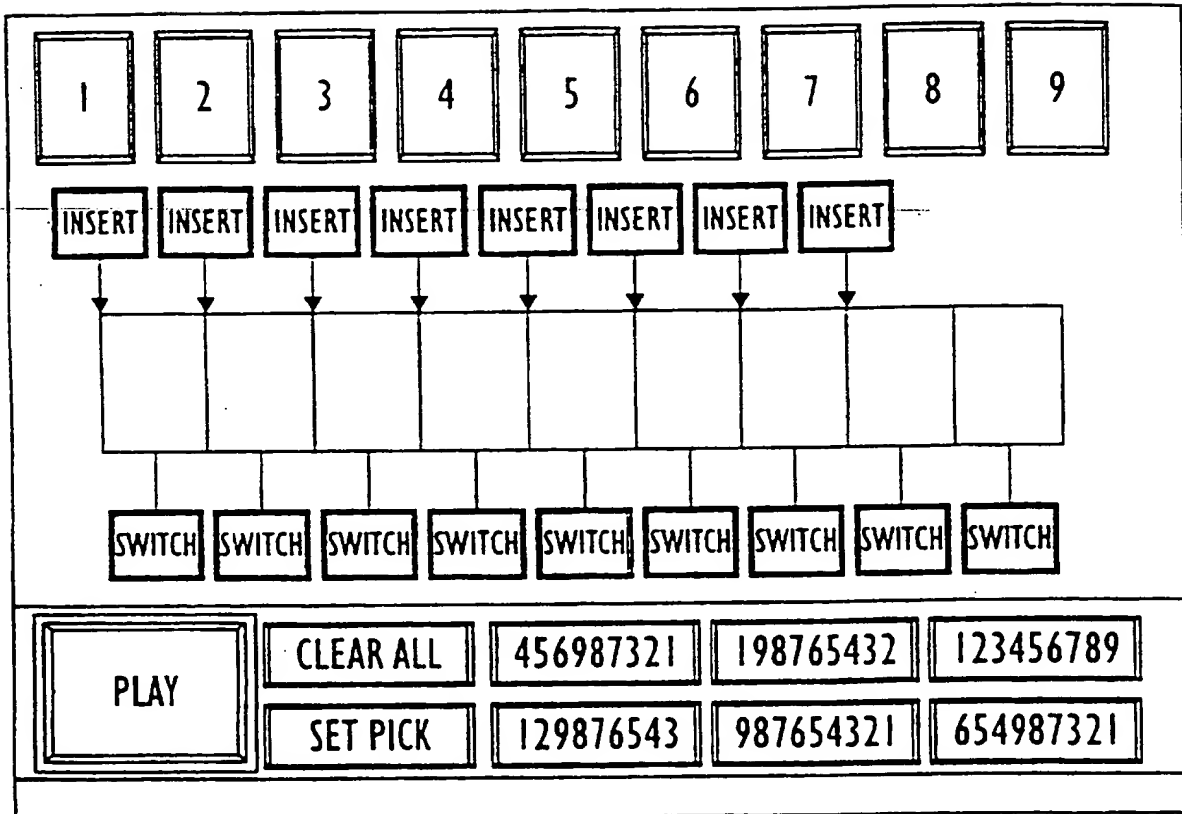
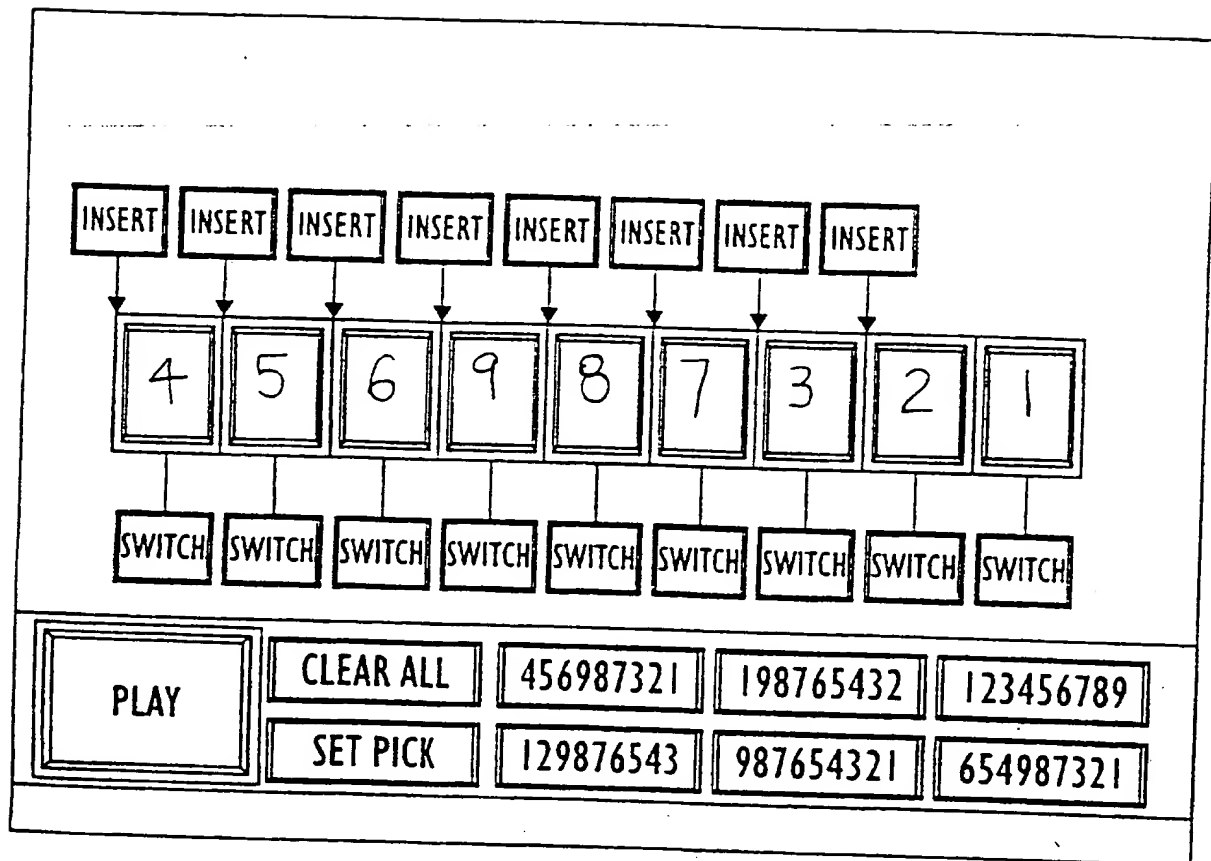


FIG. 24





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FIG. 25

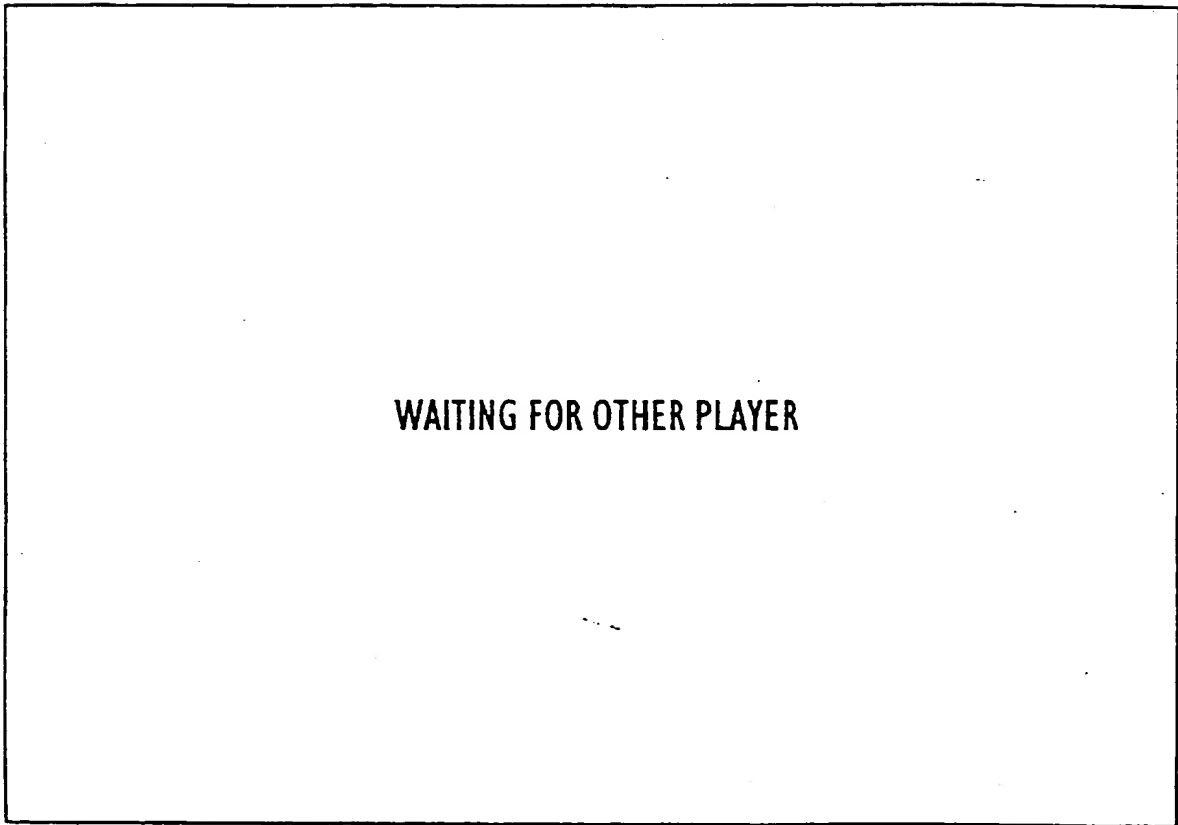
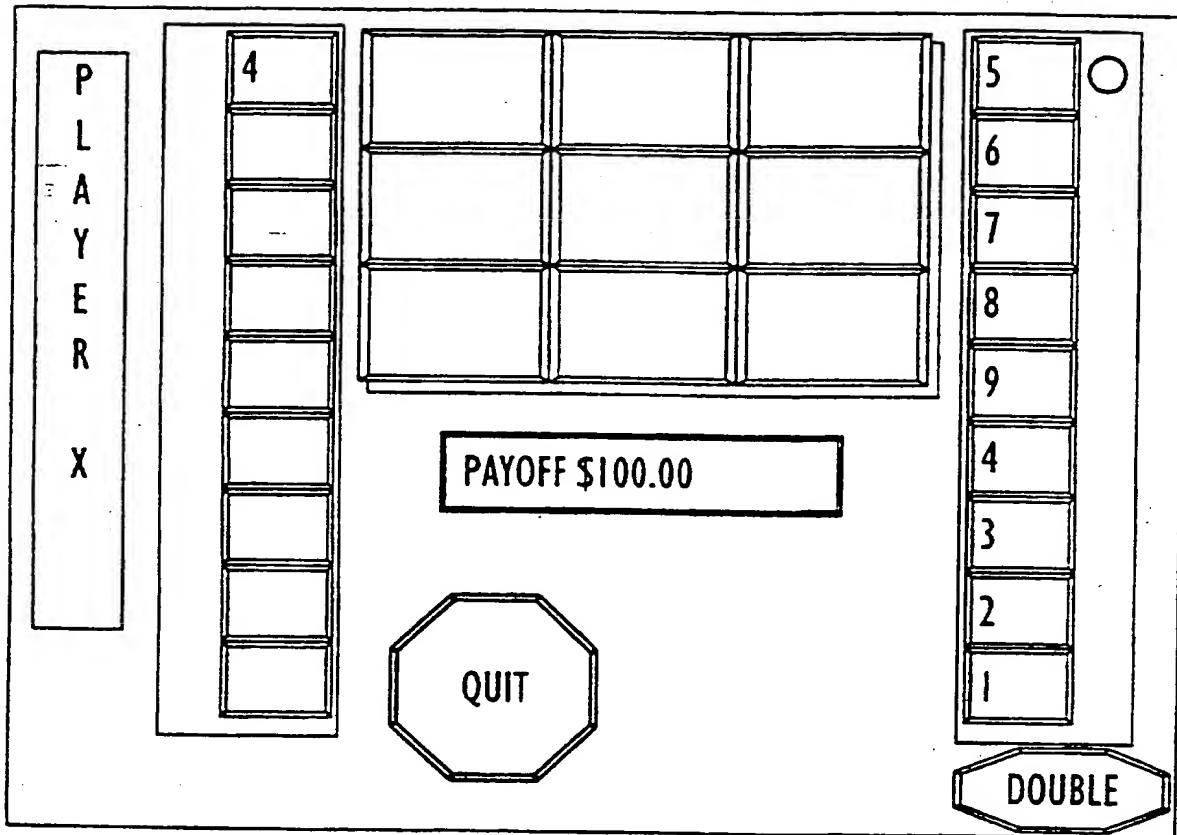


FIG. 26



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FIG. 27

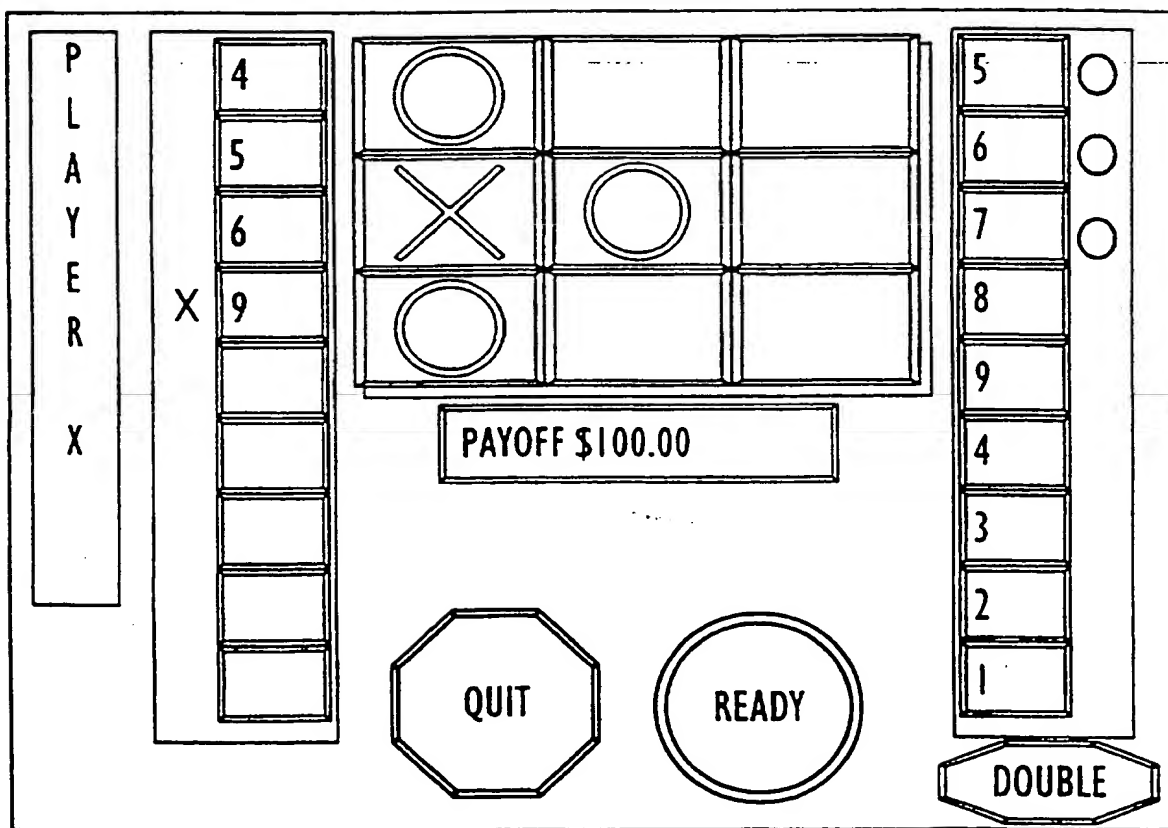


FIG. 28

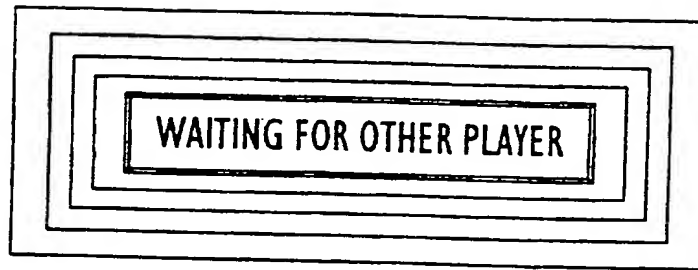
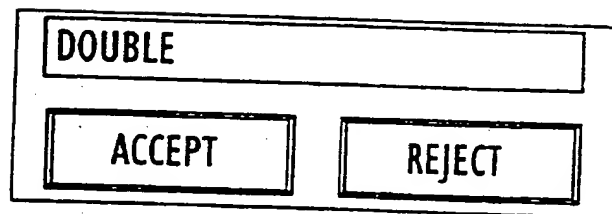
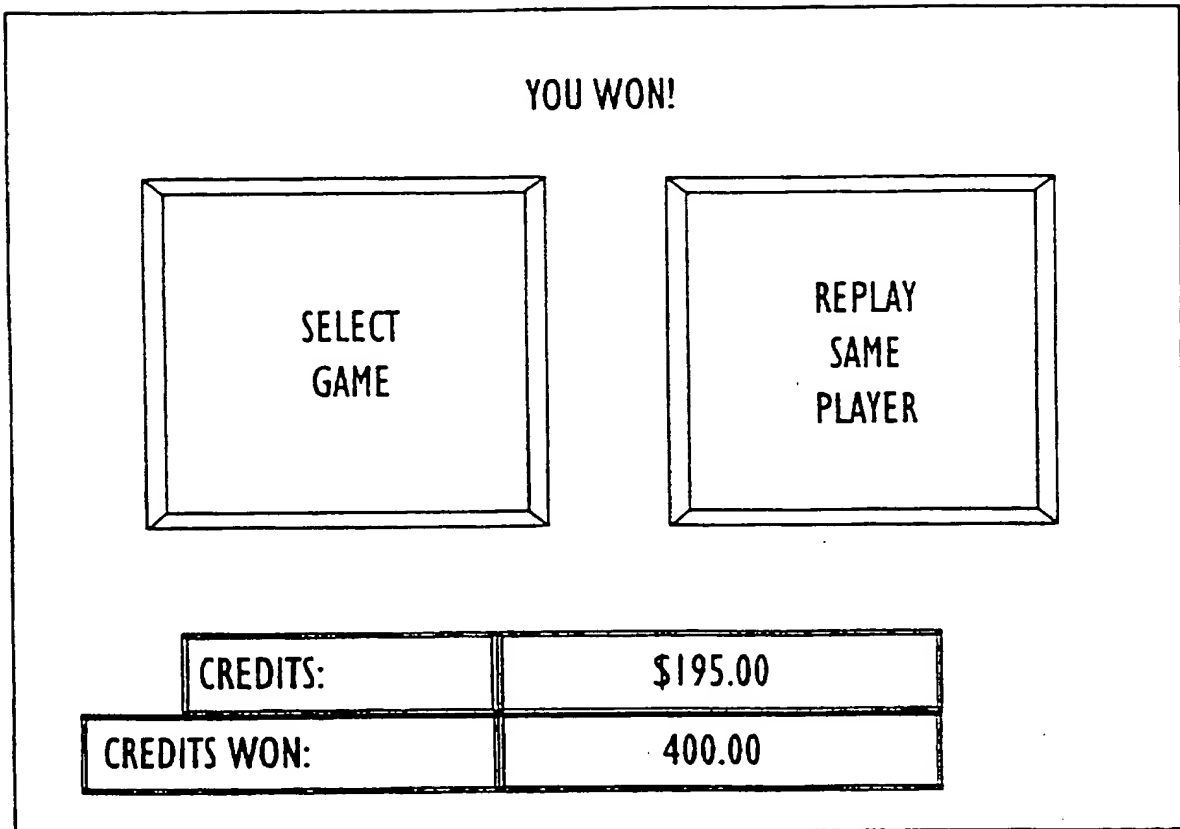


FIG. 29



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FIG. 30



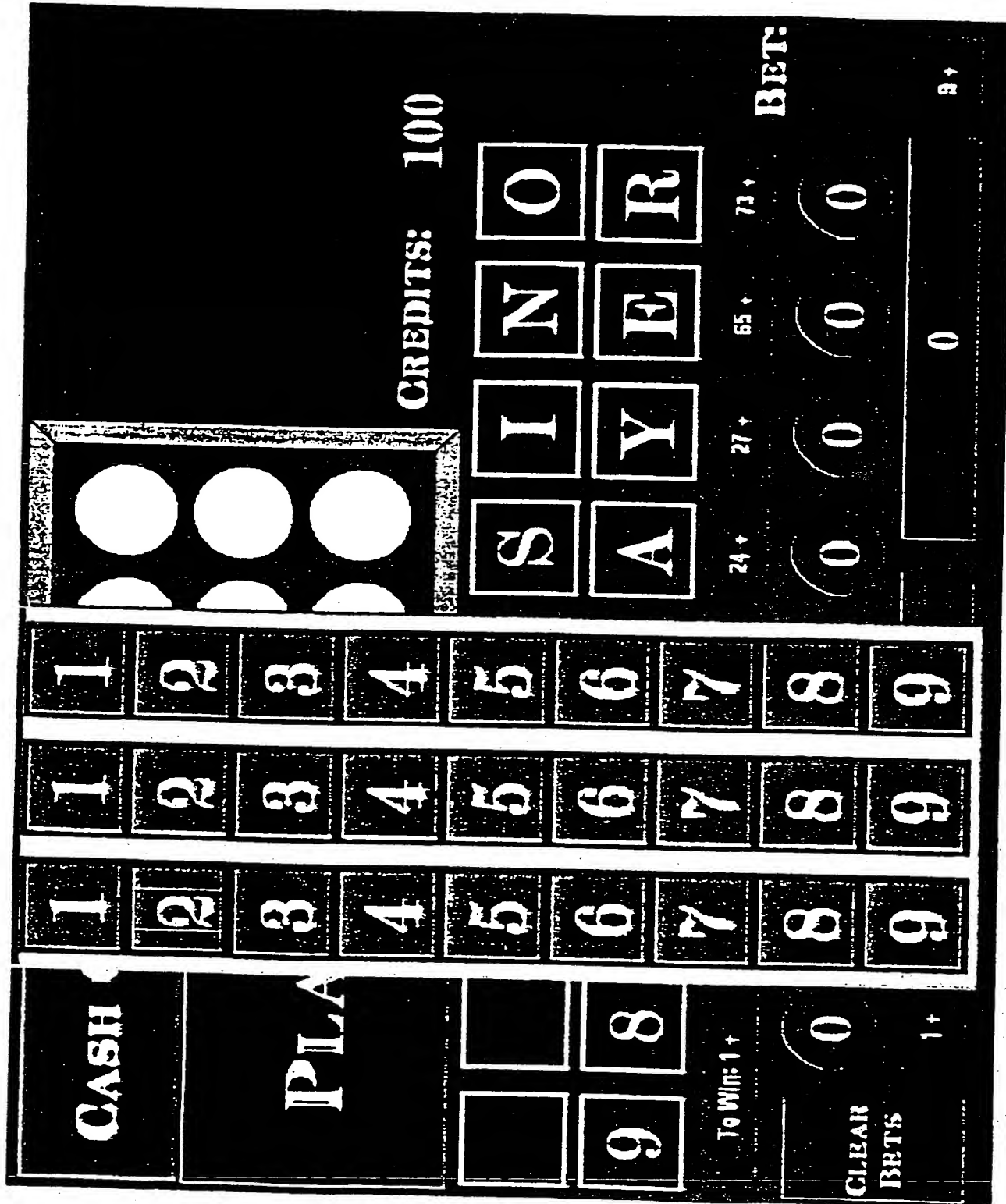


FIG. 3

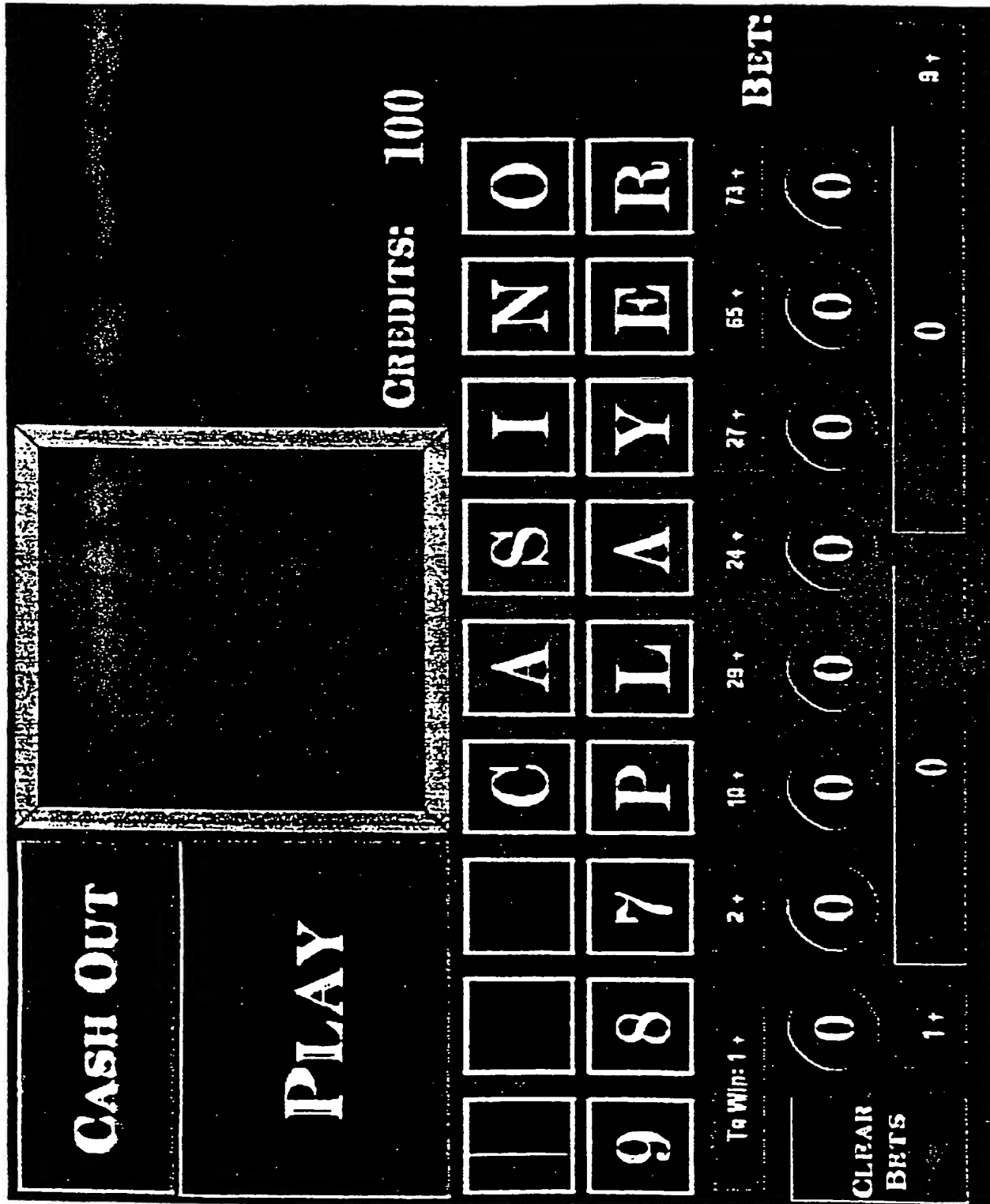


FIG. 32

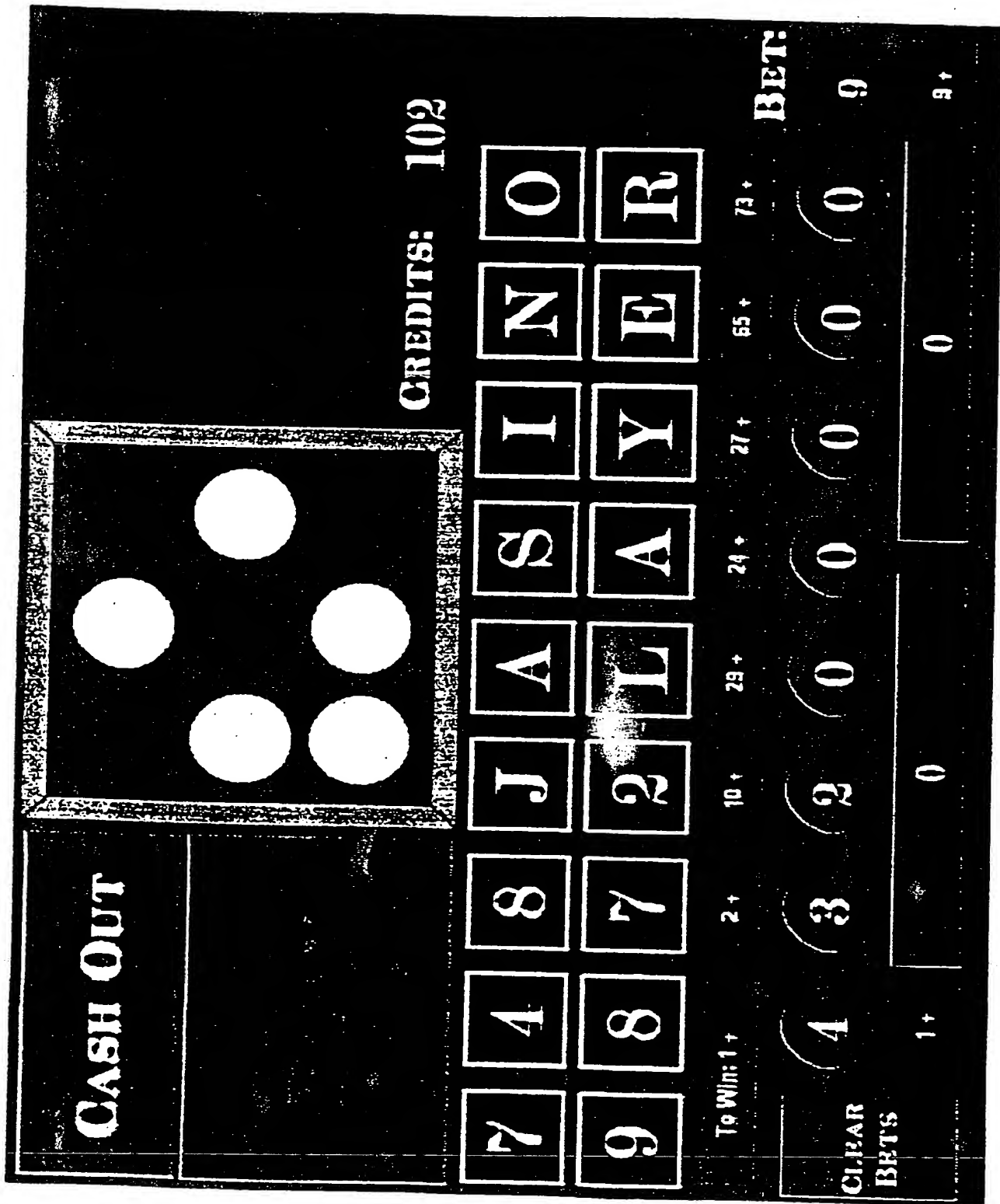


FIG. 33



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1	2	3	4	5	6	7	8	9	MOVE	WIN	1	2	3	4	5	6	7	8	9	MOVE	WIN
									5											5	
			G						1					E						1	
G			G						9	159				E						9	159
G			G				E		3					E				G		3	
G	G		G				E		2	123			E	E	E			G		2	123
G	G		G	E			E		2	123			E	E	E	G		G		2	123
G	E		G				E		6				E	G	E			G		6	
G	E		G	G			E		4	456			E	G	E	E		G		4	456
G	E		G	G		E	E		4	456			E	G	E	E	G	G		4	456
E			G						3				G		E					3	
E	G		G						7	357			G	E	E					7	357
E	G		G	E					4				G	E	E	E	G			4	
E	G	G	G			E			6	456			G	E	E	E	G			6	456
E	G	G	G		E	E			6	456			G	E	E	E	G	G		6	456
E	E		G						2				G	G	E					2	
E	G	E	G						8	258			G	E	G	E				8	258
E	G	E	E	G					8	258			G	E	G	G	E			8	258
E			E						9				G		G					9	
E			E			G			3				G		G			E		3	
E	G	E				G			6	369			G	E	G			E		6	369
E	G	E	E	E		G			8				G	E	G	G		E		8	
E	G	E	E			G	G		7	789			G	E	G	G	E	E		7	789
E	E	E				G			7				G	G	G			E		7	
E	E	E	G		G				8	789			G	G	G	E	E			8	789
			E						1						G					1	
G			E						3				E		G					3	
G	G		E						2	123			E	E	G					2	123
G	E	G	E						4				E	G	E	G				4	
G	E	G	G	E					7	147			E	G	E	E	G			7	147
G	E	E	E						7				E	G	G	G				7	
G	E	E	E	G					4	147			E	G	G	G	E			4	147
G	E	E	E		G				8				E	G	G	G	E			8	
G	E	E	E	G	G				9	789			E	G	G	G	E	E		9	789

FIG.34





# Slot-Tac-Toe Program Flow Diagram (page 1)

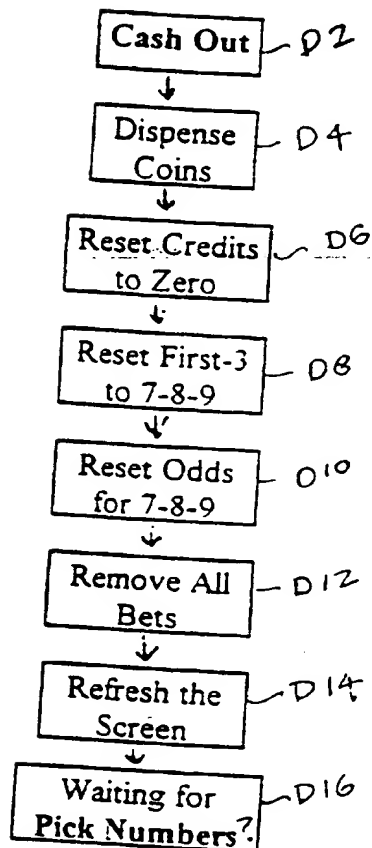


FIG. 37

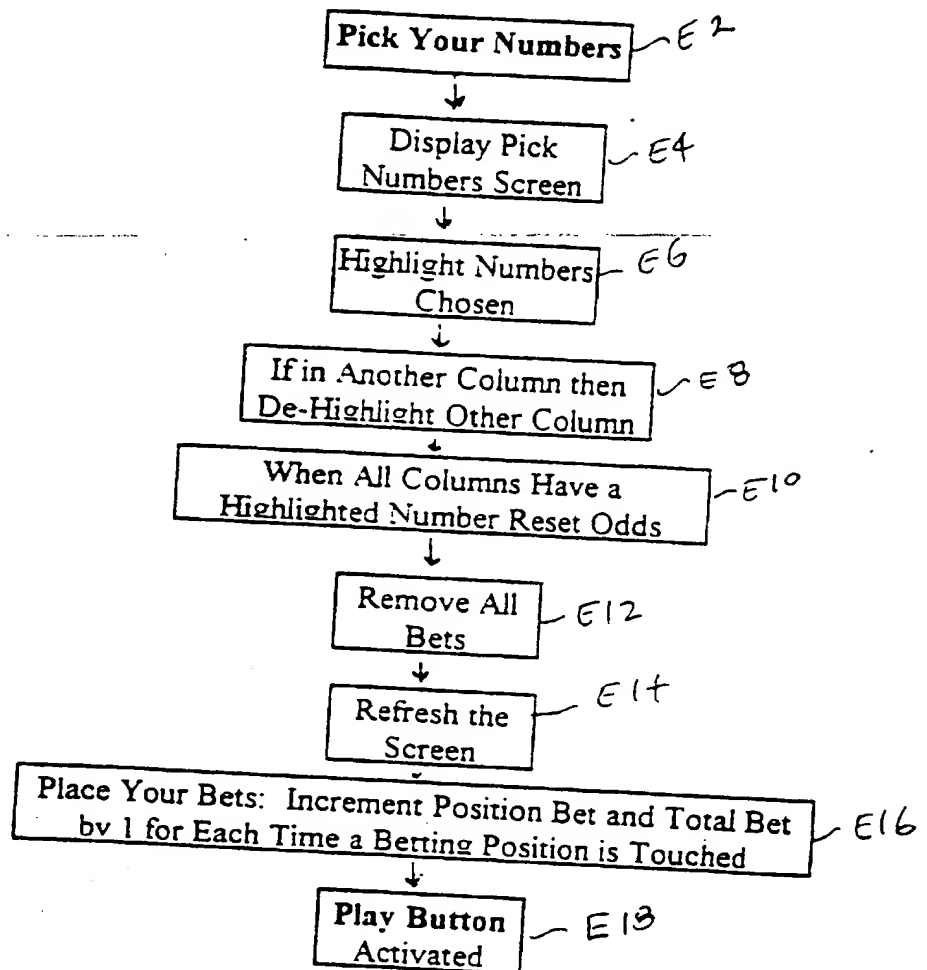


FIG. 38

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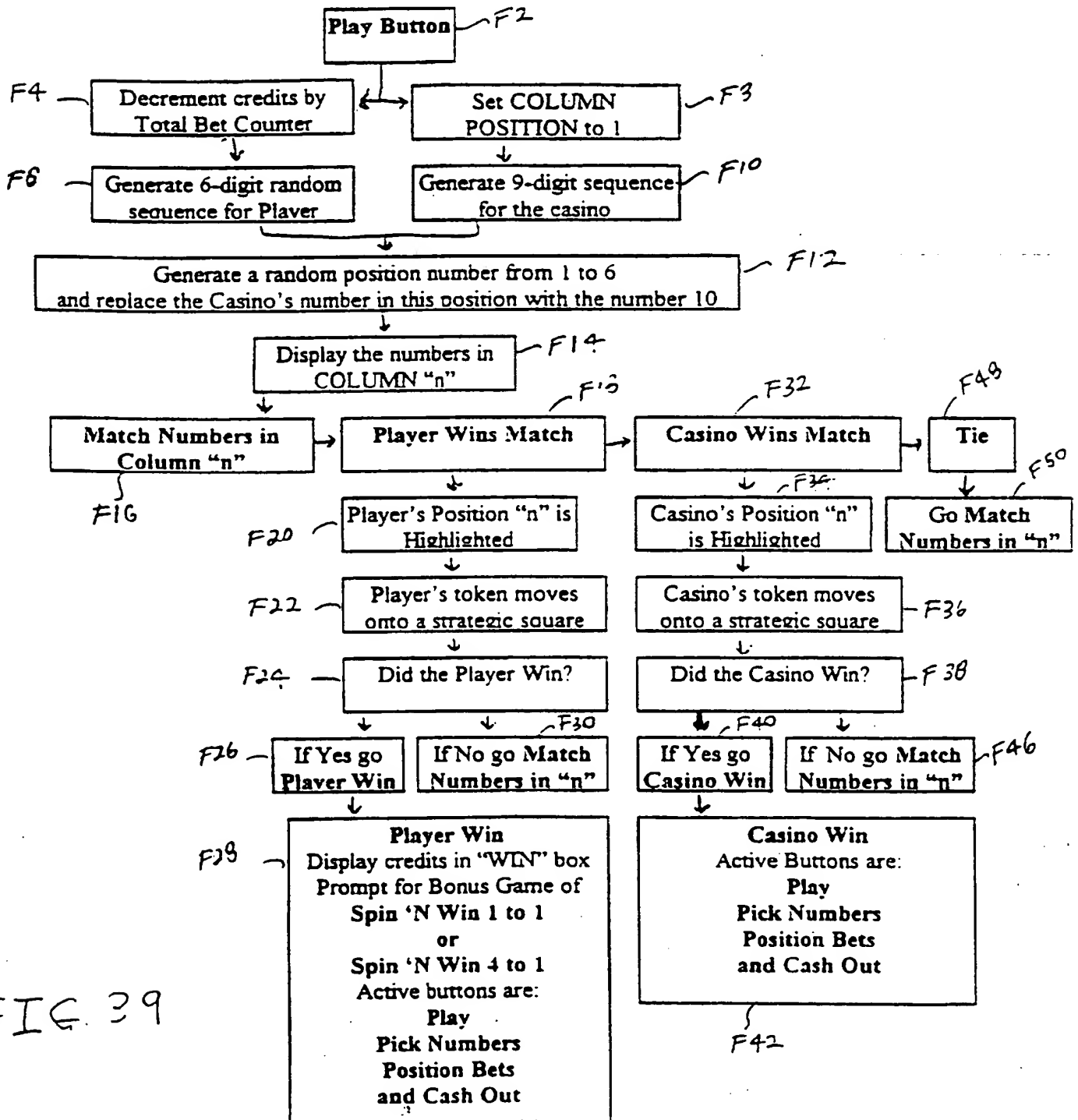
Slot-Tac-Toe Program Flow Diagram (page 2)

FIG. 39

## INTERNATION SEARCH REPORT

International application No.  
PCT/US97/01688

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : A63F 9/24

-US CL : Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 273/139, 236, 237, 271, 274, 292, 293, 308; 364/410-412; 463/1, 16, 25, 30, 31, 40-42, 99

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONEElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
NONE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,842,275 A (TSATSKIN) 27 June 1989, entire document.	1-28, 40-63
A	US 4,275,442 A (UNDERWOOD et al) 23 June 1981, entire document.	29-62, 64



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A document defining the general state of the art which is not considered to be of particular relevance	*X	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E earlier document published on or after the international filing date	*Y	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G	document member of the same patent family
*O document referring to an oral disclosure, use, exhibition or other means		
*P document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

24 APRIL 1997

Date of mailing of the international search report

05 JUN 1997

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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Washington, D.C. 20231Authorized officer  
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Telephone No. (703) 308-0785

Form PCT/ISA/210 (second sheet)(July 1992)\*.

A. CLASSIFICATION OF SUBJECT MATTER:  
US CL :

273/139, 236, 237, 271, 274, 292, 293, 308; 364/410-412; 463/1, 16, 25, 30, 31, 40-42, 99

## BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-28 and 63, drawn to electronic system.

Group II, claims 29-62 and 64, drawn to game device.

Groups I and II, the inventions listed in these groups do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I, the special technical features of this group's invention is the electronic processing of tournament data claimed therein.

Group II, the special technical feature of this group's invention is the design and playing of a game with symbols or playing pieces claimed therein. Since the special technical feature of the Group I invention is not present in the Group II claims and the special technical feature of the Group II invention is not present in the Group I claims, unity of invention is lacking.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US97/01688

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.